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Cybex 700T Treadmill
Owner's & Service Manual

Cardiovascular Systems

Part Number LT-14463-4 Rev H

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www.eCybex.com • techhelp@cybexintl.com • techpubs@cybexintl.com • LT-14463 Rev H • December 2001

IMPORTANT WARRANTY INFORMATION

To validate this warranty, complete the following information and return this card to Cybex within ten days of equipment installation.

Purchaser's Name: _____ Title: _____

Address: _____

City/State/Country/Zip Code: _____

Phone: ( ) _____ Fax: ( ) _____

Email Address: _____

Place of Installation: _____

Model Number: _____

Serial Number: _____

Installation Date (mm/dd/yy): _____/_____/_____ By: _____

Date of Purchase: _____/_____/_____ Place of Purchase: _____

City/State/Country/Zip Code: _____

Are you satisfied with your purchase? Yes ☐ No ☐ _____

LT-00990 REV. K

Two easy ways to activate the warranty:

1. **Fax -** Complete the warranty card above, photo copy this page and fax it to (508) 533-5183.
2. **Mail -** Complete the warranty card above, photo copy this page and mail the copy in an envelope to:
   Cybex, International
   10 Trotter Drive
   Medway MA 02053

NOTE: *The serial number can be found on the base of the 700T. You may wish to record the serial number in the Customer Service section of this manual.*

CYBEX®

NO POSTAGE
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UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. 73 MEDWAY, MA

POSTAGE WILL BE PAID BY ADDRESSEE

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CYBEX INTERNATIONAL
10 TROTTER DRIVE
MEDWAY, MA 02053-9934

About This Manual

For your convenience, all measurements and voltage requirements are listed in both English and metric units. English values are listed first, followed by metric units in parentheses. For example: 1" (2.54 cm).

The 700T Treadmill is a newer model that has replaced the former 640CR model. This manual, part number LT-14463, should be referred to for 640CR questions. An Owner's Manual is shipped with each 700T Treadmill.

To contact Cybex with comments about this manual you may send email to techpubs@cybexintl.com.

FCC Compliance Information

! WARNING: *Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio TV technician for help.

Declaration of Conformity

We declare that to the best of our knowledge that the fitness equipment listed below, and manufactured by:

Cybex International, Inc.
10 Trotter Drive
Medway MA, 02053, USA

Conforms to:

Directives: 73/23/EEC, 89/336/EEC

Standards: EN60335-1, EN55022, EN55014, EN50082-1

Product Name:	Treadmill
Model Numbers:	400T, 410T, 700T, 710T (220V)
European Contact:	Attention: European Sales Director Room 1, Floor 3, Tredegar Chambers, 78 Bridge Street, Newport, South Wales, NP204AQ Phone 011-44-1633-251222

NOTE: *For European customers only.*

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Cybex 700T Treadmill Owner's Manual

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IMPORTANT: *Read all instructions and warnings before using the treadmill.*

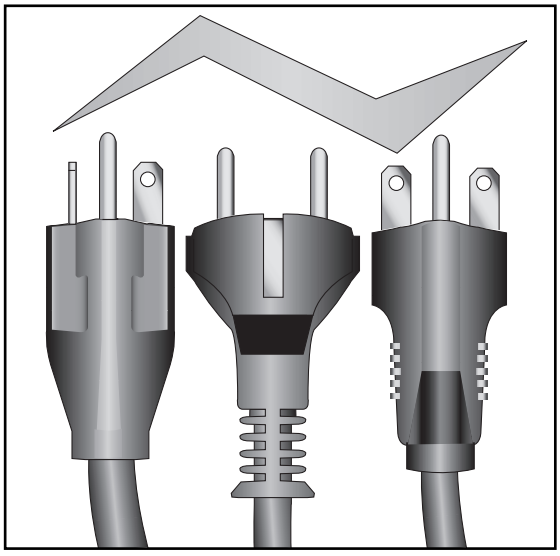
Important Voltage Information

Before plugging the power cord into an electrical outlet, verify that the voltage requirements for your area match the voltage of the treadmill that you have received. The voltage label is on the front of your treadmill. The power requirements for the 700T treadmill are a grounded, dedicated circuit, and one of the following: 115 VAC, 60 Hz and 20 amps, or 230 VAC, 50 Hz, and 15 amps, or 208/220 VAC, 60 Hz and 15 amps.

! WARNINGS: Do not attempt to use this unit with a voltage adapter.
Do not attempt to use this unit with an extension cord.

Grounding Instructions

This treadmill is intended for commercial use. This treadmill must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.



115 VAC NEMA 5-20 | Euro Plug CEE 7/7 | 208/220 VAC NEMA 6-15

! DANGER:
Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service provider if you are in doubt as to whether the treadmill is properly grounded. Seek a qualified electrician to perform any modifications to the cord or plug. Cybex is not responsible for injuries or damages as a result of cord or plug modification.

This treadmill is for use on a

grounded, dedicated circuit, and one of the following: 115 VAC, 60 Hz and 20 amps, or 230 VAC, 60 Hz, and 15 amps, or 220/240 VAC, 50 Hz and 15 amps. Make sure that the treadmill is connected to an outlet having the same configuration as the plug. Do not use a ground plug adapter to adapt the power cord to a non-grounded outlet.

Important Safety Instructions

(Save These Instructions)

! DANGER: To reduce the risk of electric shock, always unplug this treadmill from the electrical outlet immediately after using it and before cleaning it.

! WARNING: Serious injury could occur if these precautions are not observed. To reduce the risk of burns, fires, electric shock, or injury:

- Obtain a medical exam before beginning any exercise program.
- Keep children away from the treadmill. Teenagers and disabled persons must be supervised while using.
- Stop exercising if you feel faint, dizzy, or experience pain at any time while exercising and consult your physician.
- Use the treadmill handrails for support and to maintain balance.
- Use caution when mounting and dismounting the treadmill.
- Disconnect all power before servicing the treadmill.
- Use a dedicated line when operating the treadmill.
- Connect the treadmill to a properly grounded outlet only.
- Do not operate electrically powered treadmills in damp or wet locations.
- Keep the running belt clean and dry at all times.
- Stop and place the treadmill at 0 degrees incline (level) after each use.
- Do not leave the treadmill unattended when plugged in and running. After turning off the treadmill, don't leave it until it comes to a complete stop and is level. To disconnect, turn all controls to the STOP or OFF position, and then remove the plug from the outlet.
- Inspect the treadmill for worn or loose components before each use. Do not use until worn or damaged parts are replaced.
- Maintain and replace worn parts regularly. Refer to “Preventive Maintenance” Section of Owner's Manual.

- Do not operate the treadmill if the cord is damaged, if the treadmill is not working properly, or if the treadmill has been dropped or damaged. Seek service from a qualified technician.
- Do not place the cord near heated surfaces or sharp edges.
- Do not use the treadmill outdoors.
- Do not operate the treadmill around or where aerosol (spray) or where oxygen products are being used.
- Read and understand the Owner's Manual completely before using the treadmill.
- Read and understand emergency stop procedures.
- Read and understand all warnings posted on the treadmill.
- Replace any warning label if damaged, worn or illegible.
- Do not wear loose or dangling clothing while using the treadmill.
- Always wear proper footwear on or around exercise equipment.
- Keep all body parts, hair, towels, water bottles, and the like free and clear of moving parts.
- Set up and operate the treadmill on a solid, level surface. Do not operate in recessed areas or on plush carpet.
- Provide the following clearances: 39 inches (1 m) at each side, 78 inches (2 m) at the back, and enough room for safe access and passage at the front of the treadmill. Be sure your treadmill is clear of walls, equipment, and other hard surfaces.
- Do not attempt repairs, electrical or mechanical. Seek trained repair personnel when servicing. Contact the nearest authorized Cybex dealer or other competent repair service.
- Use Cybex factory parts when replacing parts on the treadmill.
- Do not modify the treadmill in any way.
- Do not use attachments unless recommended for the treadmill by Cybex.
- Report any malfunctions, damage or repairs to the facility.
- Do not use the treadmill if you exceed 400 lbs. (181 kg). This is the rated maximum user weight.

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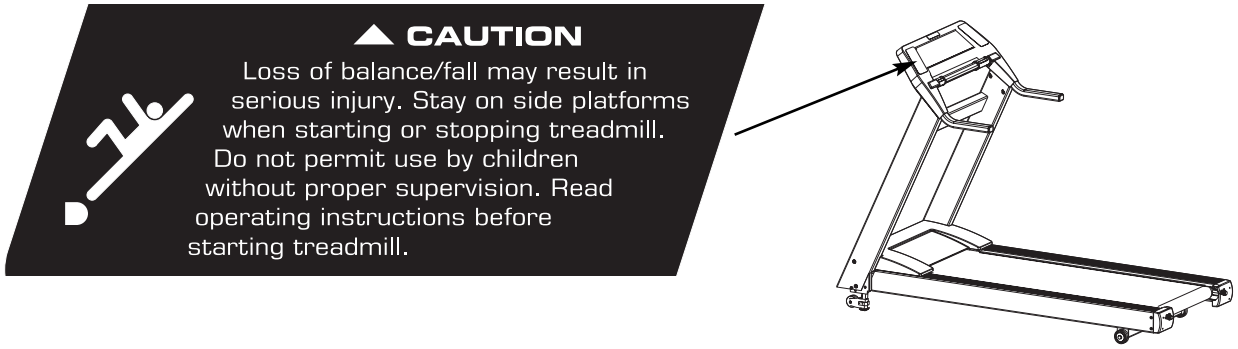
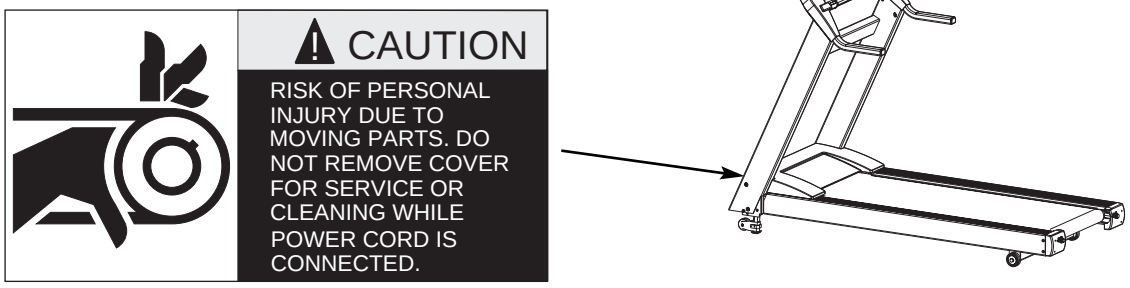
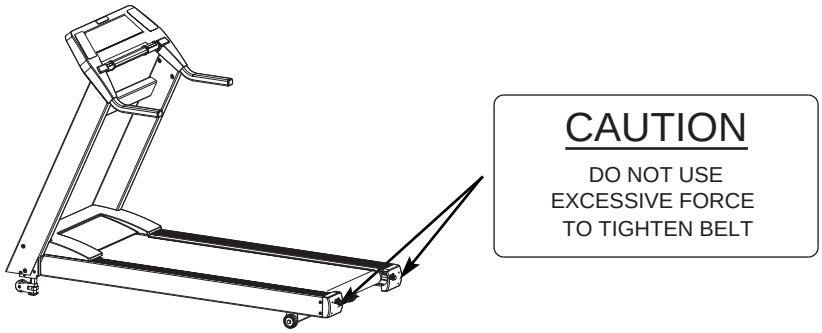
Caution Labels

Caution labels indicate a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. The caution labels used on the 700T are shown below. The complete parts list and exploded view is in chapter 7 of this manual and on the web. To replace any worn or damaged labels do one of the following: Visit eCybex.com to shop for parts online, or fax your order to 508-533-5183. To speak with a customer service representative, in most areas call 800-766-3211. Otherwise call 508-533-4300.


CAUTION
Loss of balance/fall may result in serious injury. Stay on side platforms when starting or stopping treadmill. Do not permit use by children without proper supervision. Read operating instructions before starting treadmill.


CAUTION
RISK OF PERSONAL INJURY DUE TO MOVING PARTS. DO NOT REMOVE COVER FOR SERVICE OR CLEANING WHILE POWER CORD IS CONNECTED.



Emergency Stop

Press the **STOP** key once to bring the running belt to a stop.

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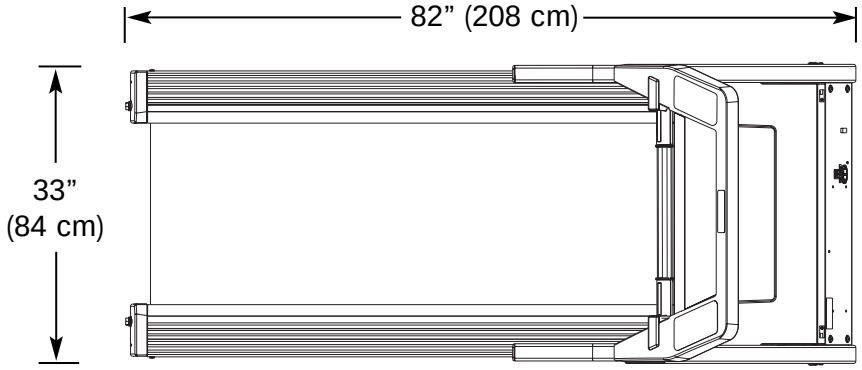
2 - Technical Specifications

Specifications

Length:	82" (208 cm)
Width:	33" (84 cm)
Overall Height:	59" (150 cm)
Running Area:	20" x 60" (51 cm x 152 cm)
Weight of Product:	375 lbs. (159 kg)
Speed Range:	0.5 to 10 mph (1.6 to 16.1 kph) in 0.1 mph or 0.1 kph increments
Incline Range:	0 to 15% grade
Levels of Difficulty:	9 per program
Manual Mode:	Yes
Programs:	4 preset, 1 custom
Optional:	Full length handrails
Standard:	Contact Heart Rate, Polar
Connectivity:	CSAFE
Chassis Construction:	12 gauge steel tubing
Deck Material:	2 sided, wax impregnated wood
Power Requirement:	Grounded, dedicated circuit and 115 VAC, 60 Hz and 20 amps, or 230 VAC, 50 Hz, and 15 amps, or 208/220 VAC, 60 Hz and 15 amps
Motor:	2.5 hp, DC. continuous duty
Emergency Stop:	Press the stop button
Languages:	English, German, French, Spanish
Maximum User Weight:	400 lbs. (181 kg)
Warranty:	Labor 1 year; parts 2 years except as follows: structural frame, 10 years; deck and belt 1 year.



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3 - Operation

Read and understand all instructions and warnings prior to using equipment. See all of the safety related information located in chapter 1.

NOTE: *Maximum user weight is 400 lbs. (181 kg).*

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Quick Operation Guide

The following is a quick overview of the operation of the treadmill. For more information read *Detailed Operation Guide* in this chapter.

1. Mount the treadmill and place your feet on the two side rails located on each side of the running belt.
2. Press **START/ENTER** to enter the *Program Select Mode*. Or press **START/ENTER** twice to skip the settings and begin immediately.
3. Press **- +** to scroll to the program of your choice, then **START/ENTER**.
4. The treadmill begins a countdown, "**3...2...1**," after which it accelerates the belt to the speed of the program that you selected.
5. Press **- +** to select your weight, then **START/ENTER**.
6. Hold the handrails while you step onto the running belt and begin walking.
7. Press the **- +** keys to change the belt speed at any time. The right display will show the current speed.
8. Press the **v^** arrows to change the incline at any time. The left display will show the current incline.
9. Press the **STOP** key at any time.

Detailed Operation Guide

Dormant Mode — *Dormant Mode* occurs when the treadmill is plugged in, turned to the on (I) position and not in use. The control panel will light up and continuously display the prompt message **PRESS START** when the treadmill is *Dormant Mode*.

Activating the Treadmill — Follow the steps below:

1. Plug the treadmill power cord into a power outlet from a grounded,

dedicated circuit, and one of the following: 115 VAC, 60 Hz and 20 amps, or 230 VAC, 50 Hz, and 15 amps, or 208/220 VAC, 60 Hz and 15 amps.

2. Locate the on/off (I/O) power switch on the front end of the treadmill (next to the power cord. Toggle it to the on (I) position to supply power to the internal treadmill components and illuminate the display panel.

3. Mount the treadmill from the rear and place your feet on the two 6" (15 cm) wide side rails located on each side of the running belt.

! CAUTION: Always place your feet on the two 6" (15 cm) wide side rails when starting the treadmill.

4. Press **START/ENTER** to enter the *Program Select Mode*.

5. Upon entering the *Program Select Mode,* the center window lights to prompt the user to select the appropriate keys to change the program and/or level. The display shows **- + PROGRAMS** and **v^ LEVEL**. After five seconds, if no key has been pressed, the **PRESS START** message will begin to flash. After twenty seconds, if no key has been pressed, the treadmill will return to the *Dormant Mode*.

6. Press the **+** key to scroll through programs 1-6. The program is displayed in the right window as "P#". Later in this chapter you will learn how to create a custom program and save it as P6. L1 (Level 1) is the default level. This chapter will also explain how to determine which level you should use for a workout. Press **START/ENTER** to accept a program.

7. The treadmill begins a countdown in both display windows, "**3...2...1**," and sounds a tone for each count. After it reaches one (1), the treadmill gives a steady tone, and then starts accelerating the belt. Depending on which program and level you selected, the belt will begin accelerating and the incline will change to the corresponding speed and incline.

NOTE: *If the programs are not working they are probably turned off or the default program has changed. Read* Programs On/Off Mode *in* Setting Operation Options *in the* Setup and Assembly *chapter to learn how to turn programs on and off. See* Memory Retention Mode *in the* Setup and Assembly *chapter to learn how to change the default program.*

8. The left display will flash the incline set point and the right display will flash the speed set point until the treadmill reaches these settings, at which time the values will stop flashing and remain steadily illuminated.

9. After the treadmill has run for a few seconds, the center window lights to prompt the user to press the appropriate keys to change the user weight.

The center display shows **USE - + TO SET WEIGHT.**

The right display flashes the default weight of 160 lbs. (73 kg).

Use the **- +** keys to adjust the weight number displayed in the right window to reach your current weight. The 700T accepts weights from 50 to 400 lbs. (23 to 182 kg). After five seconds, if no key has been pressed, the treadmill will accept 160 lbs. (73 kg) as the default weight and revert to the *Run Mode*. If you do not press the **START/ENTER** key within three seconds of changing the weight value, the treadmill will automatically accept your new weight value and revert to the *Run Mode.* The treadmill uses your weight, speed, and % grade to determine how many calories you burn during a workout.

After adjusting the weight display, the center display window will flash the instruction **PRESS START**. Press the **START/ENTER** key to accept your new weight reading.

NOTE: *For an accurate calorie count, you must correctly set your weight (including clothing).*

9. Hold the handrails while you step onto the running belt and begin walking.

10. Press the **STOP** key at any time to stop your workout. Press **STOP** once to pause your workout, twice to review your workout information and end your workout session, or three times to clear the display and the current workout information. As you press **STOP** once, the treadmill will return to 0% incline and a five minute countdown will begin in the left display. Resume your workout within the five minutes by pressing the **START/ENTER** key. The treadmill will return to the same incline, speed and time where you left off.

NOTE: *If pressing* **STOP** *once does not pause your workout it is probably turned off. Read* Pause On/Off Mode *in* Setting Operation Options *in the* Setup and Assembly *chapter to learn how to change the pause default.*

Stopping the Treadmill

The **STOP** key may be pressed one, two or three times to accomplish the following:

Press **STOP** once to pause your workout. The belt will stop, and the elevation will return to 0%, but all workout settings and data will remain in memory for five minutes. Press the **START/ENTER** key to continue your workout at the speed and elevation where you left off. If no key has been pressed during the five minute pause, workout data will be cleared and the display will change to *Dormant Mode*.

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Press the **STOP** key a second time to begin a workout review. The totals reached during your workout session will cycle and the five minute pause will end. After the workout review is finished the treadmill will automatically change to *Dormant Mode*.

Press the **STOP** key a third time to interrupt workout data from cycling and to change the display to *Dormant Mode*.

The function of the immobilization method: The purpose of immobilizing the treadmill is to prevent unauthorized use. This can be accomplished by removing the power cord from the outlet and from the treadmill.

The emergency dismount: Should you experience pain, feel faint, or need to stop your treadmill in an emergency situation, you should follow these steps:

1. Grip handrails for support.
2. Step onto the side rails.
3. Press the **STOP** button two times.

The function of the emergency stop: The red **STOP** button functions as the emergency stop. In an emergency situation, press the **STOP** button once and the treadmill will come to a stop. If you are ending your workout session, press **STOP** a second time, so that the next user will not resume at the last user's speed and elevation.

Control During Operation

Every key on the display is usable during operation. Any key may be pressed at any time to make adjustments in speed, elevation, or data readouts.

Changing Speed — Press the **-+** keys to change the speed in increments of 0.1 mph or 0.10 kph. Minimum to maximum speed is from 1.0 - 10 mph (1.6 - 16 kph).

Changing Incline — Press the **v^** arrows to change the elevation in increments of 1%. Maximum elevation is 15%. (Elevation is defined as the ratio of rise over run of the treadmill deck.)

Changing Level — During a programmed workout, press the **START/ENTER** key to display the current program and level status. Then press **- +** keys to change the level. The level will change immediately and will continue to accumulate performance data without interruption. For information on determining which level is right for you, see *P5 — Fitness Test* in this chapter.

Changing Programs — You can switch to a programmed workout (P2-P6) while in the P1 Manual Mode. Your current accumulated data will be transferred to the new program. Press **START/ENTER** to enter the *Program Select Mode* and press the **- +** keys to scroll through

programs P2-P6. ***NOTE:*** *You cannot, however, switch from a programmed workout to any other program without ending your current workout and losing your accumulated data.*

Changing Workout Time — You can workout up to 995 minutes in *Manual Mode*. Or you can create your own program the length you wish. ***NOTE:*** *You cannot change the set time on programs P2-P5.*

Changing Data Readouts — Press **SHIFT** once during a workout to review each individual set of data. Each time you press **SHIFT** the display cycles to the next set of data that you wish to monitor. To cycle continuously through available data during a program, press and hold down **SHIFT** for two to three seconds. The display shows each set of data for three seconds before switching to the next set. To stop cycling the display of data, press **SHIFT** once.

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Data Readouts

As you exercise, the treadmill keeps track of your speed, % grade, calories burned per hour, the accumulated number of miles you cover, the amount of time you have spent (or have left) in a program, the total calories burned, your pace, and your heart rate. You can review this data any time during the workout.

Data displayed during a program: Press **SHIFT** once to review each set of data. Each time you press **SHIFT**, the display cycles the data in the left and right windows as follows:

1.	% GRADE	and SPEED
2.	TIME	and DISTANCE
3.	CAL	and PACE (in minutes and seconds)
4.	CAL/HR	and Heart Rate (in beats per minute)

To review accumulated data after a program: The display automatically cycles through your accumulated workout data at the end of a workout session. To review the data again (perhaps if you missed seeing a value), press **SHIFT** and the review sequence will repeat.

Meaning of terms:
%Grade — A 1% grade is not the same as a 1 degree incline.The % grade is the relationship of the measurement of rise over the measurement of run (also called slope). For example, a 1 foot (meter) rise in height over a length of 100 feet (meters) is a 1% grade. Expressed as a mathematical formula, the grade is calculated as follows:
1 ft. (m) / 100 ft. (m) = 0.01 = 1%

With respect to treadmills, the percent grade is roughly equal to the increase in height (rise) of the treadmill divided by the length (run) of the treadmill.

The degree of incline, or the angle of the treadmill, is calculated by a different mathematical formula: the arctangent of the grade (or slope).

Speed — The rate that you are traveling on the running belt.

Distance — The total accumulated distance, in miles or kilometers, during your workout.

Calories Per Hour — How many calories you are burning per hour. Your weight must be correctly set for this measurement to be accurate.

Calories — The total accumulated calories burned during your workout. Your weight must be correctly set for this measurement to be accurate.

Pace — At your current speed, how long it would take to cover a mile (or kilometer), displayed in minutes:seconds.

Heart Rate — Your current heart rate. Heart rate will appear automatically when a signal is introduced. Use either the handgrips for Contact Heart Rate or a Polar compatible heart rate transmitter.

Selecting Programs & Options

Every key on the display is usable during operation. Any key may be pressed at any time to make adjustments in speed, elevation, level, or data readouts. However, workout time and program choice can not be changed without ending your current workout.

Displaying Heart Rate

In order for the 700T to display your heart rate, you must either use a Polar compatible heart rate transmitter belt, or your treadmill must have the optional Contact Heart Rate.

Contact Heart Rate — Hold the handgrips on the console crossbar until a heart rate is displayed, typically less than thirty seconds. For best results, hold the handgrips lightly and ensure that your hands contact both the front and back sensors of each grip. Movement can cause interference on the contacts, so hold your hands as steady as possible.

> ***NOTE:*** *When wearing a Polar compatible transmitter, the contact heart rate will dominate only when the grips are held.*

Polar Compatible Reception — To use this feature, a Polar compatible heart rate transmitter belt must be worn. To view heart rate continuously, press the **SHIFT** key until "**H**" appears in the right display.

NOTE: *Please note that Cybex does not recommend continuous holding of the handrails or the contact heart rate grips while running.*

Use of Programs

The 700T is one of the most advanced personal fitness treadmills available. With the 700T, you choose from four different programs, all of which have nine levels of difficulty, for a total choice of thirty-six different preprogrammed options. With this unique combination of programs, you can tailor your workout to achieve exactly the fitness goals you desire: weight loss, conditioning, endurance, or maintenance of overall health.The program choices are summarized as follows:

P1	Manual	You control speed, elevation, and time as you go.	
P2	Speed Challenge	9 Levels	30 Minutes
P3	Cardiovascular	9 Levels	30 Minutes
P4	Weight Loss	9 Levels	45 Minutes
P5	Fitness Test	9 Levels	20 Minutes
P6	Saved Program	You program speed, elevation, and time.	

NOTE: *It is recommended that you begin your first workout with Program 5, the Fitness Test Program, to determine your level of fitness.*

!WARNING: *Obtain a medical exam before beginning any exercise program.*

NOTE: *The default program and user weight can be changed to the program of your choice. See* Memory Retention Mode *in the* Setup and Assembly *chapter.*

P1 — Manual Mode

Manual Mode is not a preprogrammed workout. Instead, it allows you to choose settings as you workout. You may choose your settings according to how you feel, or your endurance level. Since you remain in control, *Manual Mode* may be the best choice for beginners or for those who have not worked out in a long time.

To increase or decrease the speed while in *Manual Mode* use the - + keys. To increase or decrease the incline while in *Manual Mode* use the **v^** arrows.

When you workout in *Manual Mode*, be sure to include a three-to-five minute

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warm-up and cool-down period. You can warm-up by setting a slow speed for walking/jogging on the treadmill at zero incline and then gradually increase the speed to the target for your workout. Reverse this process for your cool-down period, slowing down the speed gradually and returning the incline to zero.

P2 — Speed Challenge

The P2 Speed Challenge Program is a thirty-minute, high-intensity walking workout designed to improve your cardiorespiratory system and increase your muscle workload capability. P2 uses changes in intensity to exercise your body at near maximum capacity for short time intervals. If you are training for road races or other high-energy sports, the P2 program will help you shave minutes off your race times.

Speed Challenge Program Profile — The P2 Program consists of an initial eight-minute warm-up of relatively mild increases and decreases in both speed and incline. This is followed by a series of four five-minute super-intervals, consisting of one steady incline and a substantial increase in speed.

Each of these four intervals lasts for five minutes: two minutes at the high speed followed by three minutes at a 30% speed slowdown to allow you to "catch your breath" before increasing the speed once again.

At the time of the speed increase, your walking speed increases to approximately 12% faster than your P5 peak speed at your maximum P5 grade. At the end of the four super-intervals, a two-minute cool-down period slows the treadmill and returns to 0% grade.

Choose a level that reflects your fitness level as determined in the P5 Fitness Test program.

Program Results — The P2 Speed Challenge program is one of the most challenging workouts offered by your 700T. It is designed to push you to the limit to improve your walking speed.

If you are just starting your fitness walking program, this workout may be too much for you. In that case, you can cut your P2 workouts short at any point until you feel comfortable completing the full thirty-minute workout. Don't forget to allow yourself a three-to-five minute cool-down period if you leave the program before it is complete.

Even one P2 workout a week strengthens the cardiorespiratory system, enabling your muscles to accept higher workloads and thus increase your normal walking speed.

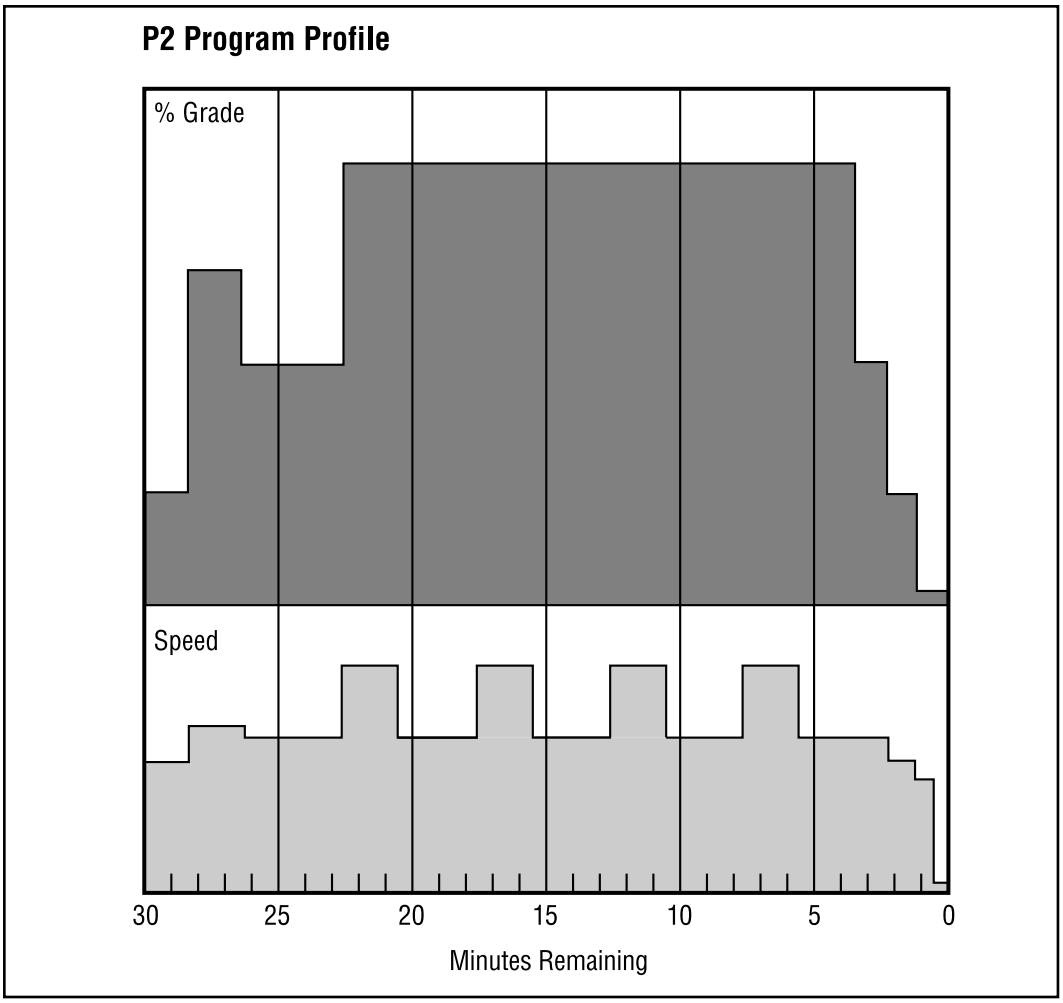

Figure 1

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P3 — Cardiovascular Program

The P3 Cardiovascular Program is a thirty-minute workout that uses high-intensity, aerobic exercise to strengthen the heart muscle, stressing the heart at about 70% to 85% of its maximum pumping rate.

Cardiovascular Program Profile — The P3 Program consists of an initial four-minute warm-up segment of relatively mild increases in speed and incline. This is followed by a twelve-minute segment of automatic increases in speed and % grade. During this time the program reaches its maximum intensity.

The next ten-minute segment is "all downhill" as the speed begins to slow and the % grade gradually decreases.

A final four-minute segment serves as the cool-down period. The treadmill slows down and the incline returns to 0% grade.

Choose a level that reflects your fitness level as determined in the P5 Fitness Test program.

Program Results — The P3 Cardiovascular Program is designed to keep your metabolism high for most of the thirty-minute workout. For 71% of the time (twenty-two out of the thirty minutes) you are working at an intensity level averaging approximately 93% of your maximum P5 performance workload. If you are just starting your fitness walking program, this workout may be too much for you. In that case, you can cut your P3 workouts short at any point until you feel comfortable completing the full thirty-minute workout. Don't forget to allow yourself a three to five minute cool-down period if you leave the program before it is complete.

Three P3 workouts per week, with 48 hours of recovery time in between each session (e.g., Tuesday, Thursday, and Saturday), are sufficient to maintain good cardiovascular conditioning.

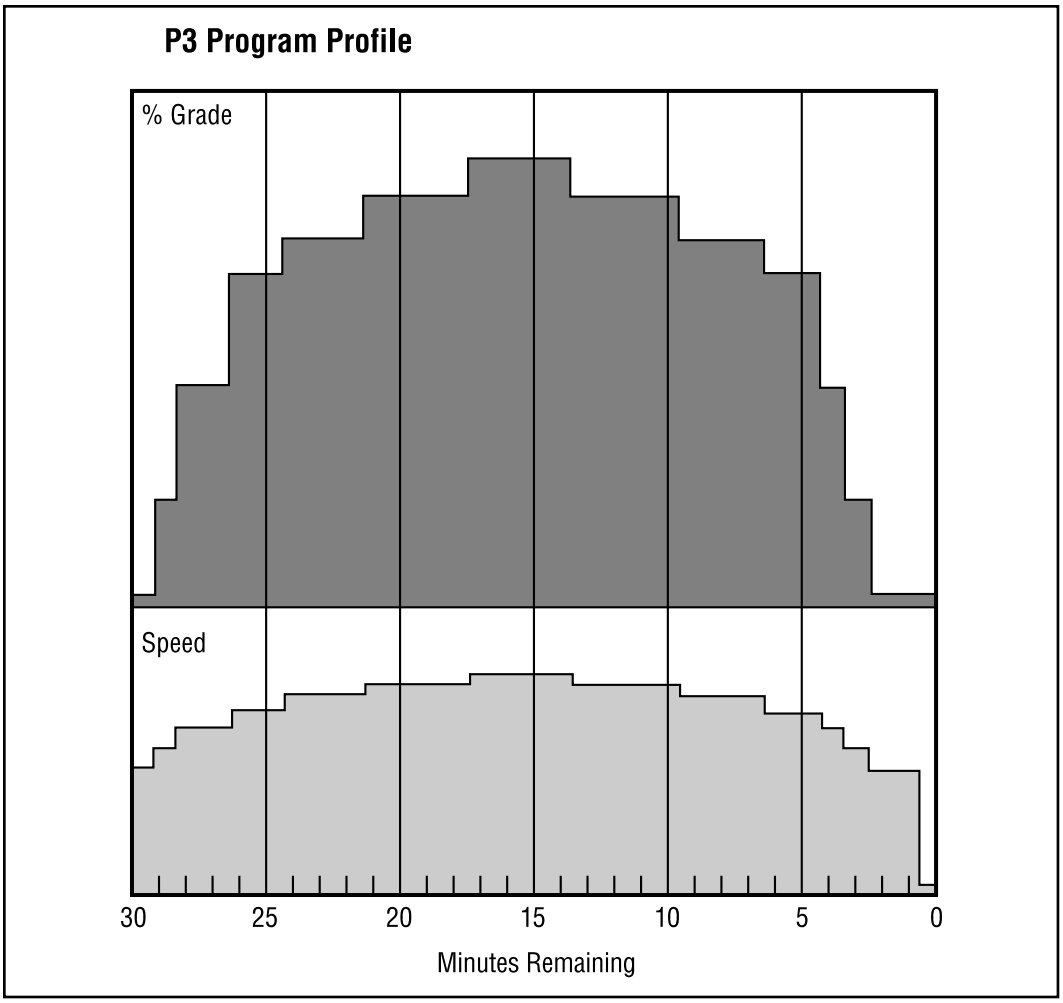

Figure 2

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P4 — Weight Loss Program

The P4 Weight Loss Program is a forty-five-minute walking workout designed to help you lose weight. In this program, weight loss is based on the length of time you exercise. Exercising at a lower intensity allows you to handle a longer duration and distance workout and thus burn more calories. With other lifestyle factors remaining the same (such as diet), simply adding the P4 workout to your schedule should result in weight loss because of the increase in calories burned.

You could alternate this program with any of the other 700T programs to combine weight reduction and fitness training.

Weight Loss Program Profile — The P4 Program consists of an initial six-minute warm-up of relatively mild increases in speed and incline. This is followed by five seven-minute segments (thirty-five minutes total), during which speed remains constant and the % grade changes to simulate hill profiles.

Near the end of each five-minute segment, the % grade automatically increases to the maximum % grade for that "L" level. For example, if the current grade is 6% and the maximum is 8%, the 700T will increase to 8% grade for two minutes and then return to 6% grade for another five-minute segment. The speed remains constant during the entire period. This is equivalent to walking at a constant speed on a series of five rolling hills.

It is these hills that help you burn extra calories and more fat by providing a "metabolic spike" as your workload increases during the periods of maximum incline.

A four-minute segment at the end of the program serves as a cool-down period. The treadmill slows down and the incline returns to 0% grade.

Choose a level that reflects your fitness level as determined in the P5 Fitness Test program.

Program Results — The P4 Weight Loss Program is designed to keep your metabolism high for most of the forty-five-minute workout. For 77% of the time (thirty-five out of the forty-five minutes) you are working out at a level averaging approximately 85% of your maximum P5 performance workload.

If you are just starting your fitness walking program, this workout may be too much for you. In that case, you can cut your P4 workouts short at any point until you feel comfortable completing the full forty-five-minute workout. Don't forget to allow yourself a three to five minute cool-down period if you leave the program before it is complete.

Three to four P4 workouts per week, in conjunction with other 700T programs performed on alternate days, will ensure that you remain active on a daily basis. This is the ideal way to schedule your weight loss program for maximum results.

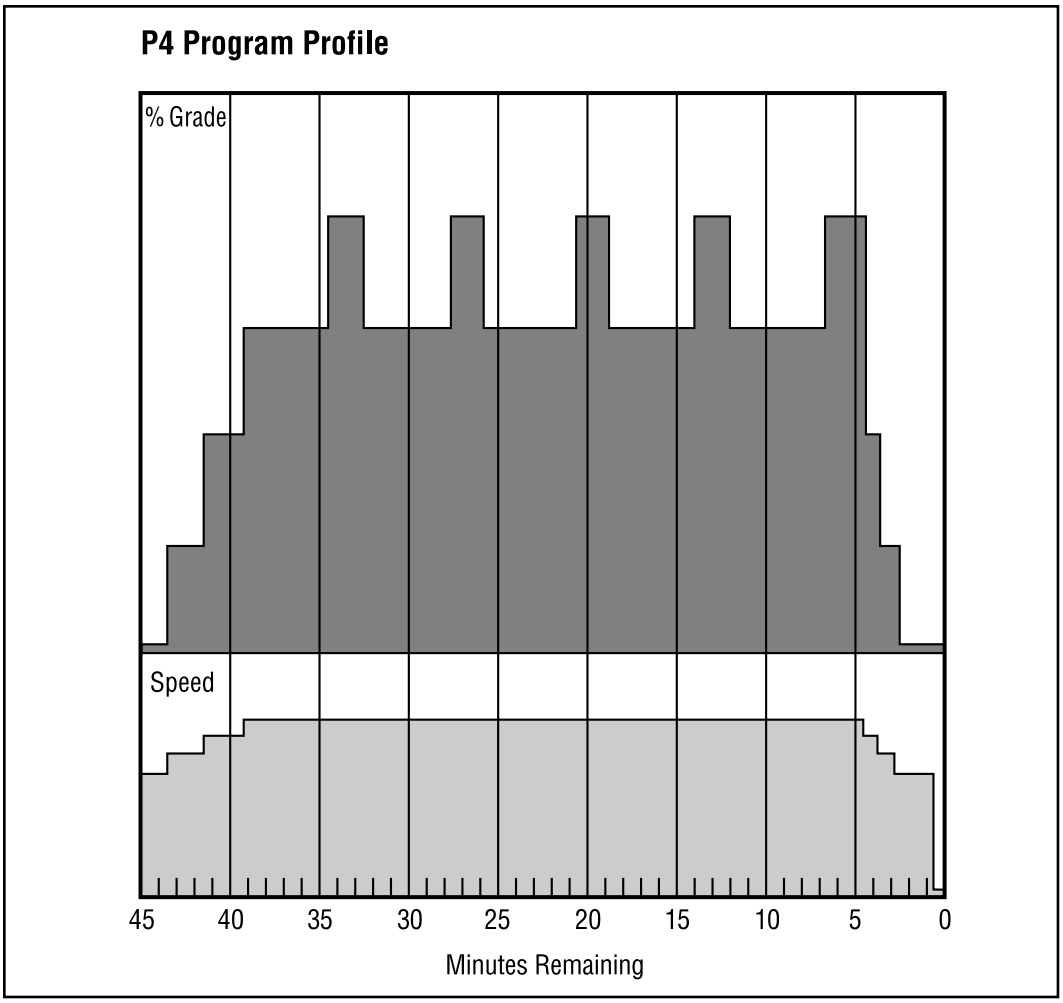

Figure 3

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P5 — Fitness Test Program

The P5 Fitness Test Program is a twenty-minute walking workout designed to test your aerobic walking capacity. It is the guide by which you determine which fitness "L" level is best suited to your current performance capability and physical condition.

If you successfully complete the twenty-minute test at a certain fitness level (L1...L9), you are capable of training in the other programs (P2, P3, and P4) at that same "L" level number.

In addition to providing the key to your current "L" level status, the P5 program can be used at any time as an excellent cardiovascular conditioning workout. P5 provides a relatively long and gradual warm-up period of increasing speed and incline and a five minute cool-down period at the end. The middle portion of the program brings you to a fairly high percentage of maximum heart rate at the peak workload point in the program (minute twelve to minute fifteen).

Fitness Test Program Profile — The P5 Program consists of five three-minute segments (fifteen minutes total) and one five-minute cool-down segment. At the end of each three-minute segment, both the SPEED and the GRADE of the treadmill increase.

When the fifth segment begins (twelve minutes into the workout), you are at the maximum workload point in the program. The final five-minute segment (beginning at minute sixteen) serves as a cool-down period when the treadmill slows down and returns to 0% grade.

!CAUTION: Choose a level that realistically reflects your fitness level and begin your fitness test. Do NOT begin at L9 and work your way down. If you have been relatively inactive for some time, start at level L1 to L3.

Program Results — To pass your P5 Fitness Test successfully:

- You must complete the entire program without any major pains or discomfort.
- You must feel that you could carry on a conversation with someone standing nearby during the entire twenty-minute program.
- You must feel that you could have continued the fifth interval (the most difficult interval) even if it was increased from its three-minute time period to a ten-minute time period.
- Your heart rate did not exceed 85% of its maximum capability, immediately after the maximum workload interval (fifth segment) or exactly fifteen minutes into the program.

If you are unable to complete the P5 workout at your current "L" level, drop back one "L" level and try again in a day or so. If you are able to complete the P5 workout with no strain at all, increase your "L" level one number and repeat the fitness test in 24 hours. If you are just able to complete the P5 workout and realize that the next highest "L" level is out of your reach, you have found your true "L" fitness level.

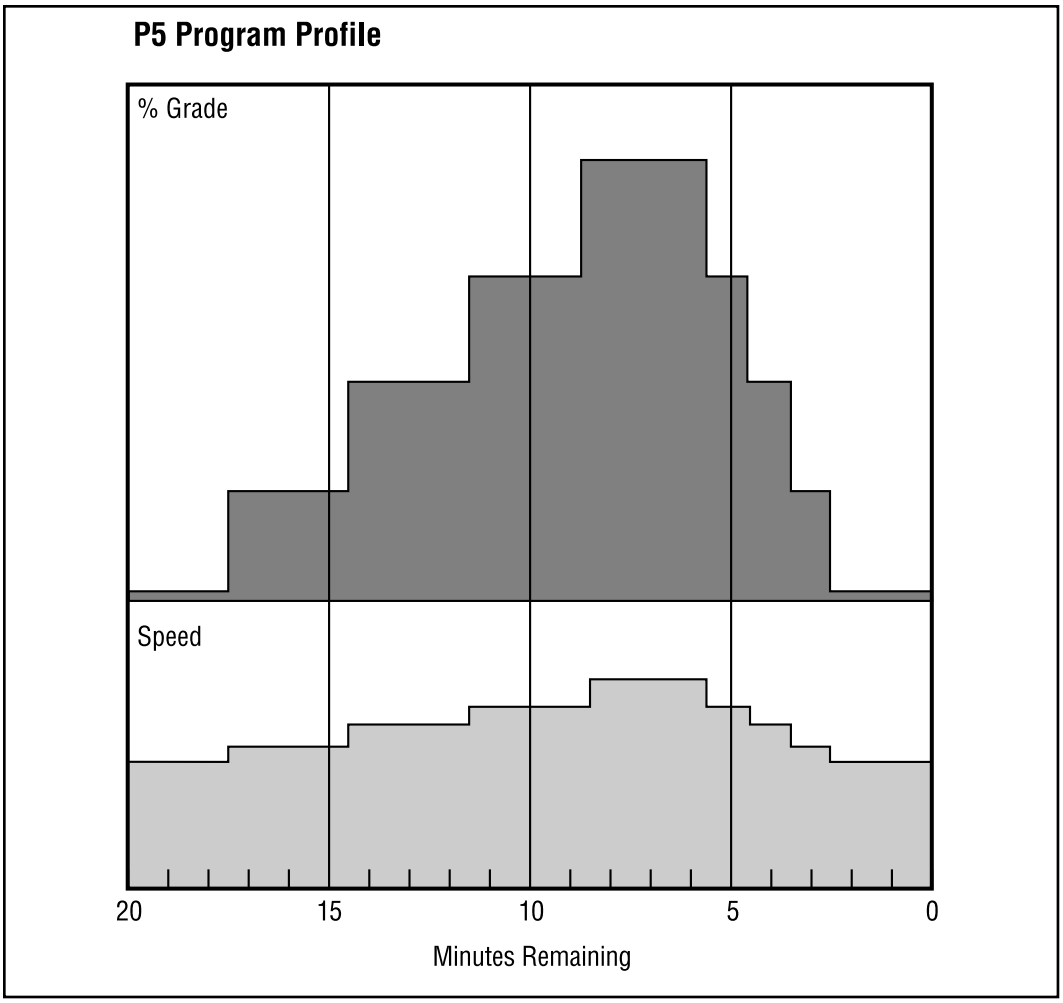

Figure 4

The 700T is designed to help you set goals and measure your progress. The key is to evaluate your fitness level "L" and to re-evaluate it periodically at different stages of your training. Most importantly, the fitness test tells you precisely which "L" level is commensurate with your ability. As long as you know your "L" level, you'll be able to plan your workouts for optimum results.

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P6 — Saved Program

In addition to the four programmed workouts included with the 700T, you can also create your own workout by manually changing the speed and/or incline as you exercise. You increase or decrease the speed and incline settings, using **SPEED - +** keys and **v^** arrows. You can even create a workout to mimic a route you normally run or walk outside.

When you design your own program, be sure to include a three to five minute warm-up and cool-down period. You can warm-up by setting a slow speed for walking/jogging on the treadmill at zero incline and then gradually increase the speed to the target for your workout. Reverse this process for your cool-down period, slowing down the speed gradually and returning the incline to zero.

Creating A Personal Workout

If you make speed or incline modifications during a program, you may want to save your changes so that you can repeat that same workout again. Or you may want to save a *Manual Mode* workout session. You can save one personal program (P6). To create your personal workout:

1. **Select and complete any program.**
   - **A.** Choose *Manual Mode* to create your own workout or any program (P1-P5) to modify a programmed workout.
   - **B.** Include a three-to-five minute warm-up period.
   - **C.** Complete the entire program, altering it as you go by changing the level, speed, and/or incline.
   - **D.** Include a three-to-five minute cool-down period.
2. **Save your personal workout as P6.**
   - **A.** Press and hold the **START/ENTER** key for a second or two after pressing **STOP** twice or at any time during the twenty-second workout review at the end of a program.
   - **B.** The machine will emit a short beep to indicate that the custom program has been saved. The new custom workout will be saved as Program 6 (P6). If an earlier custom program was already saved in the P6 location, it will be replaced by the new program.

Workout Tips

Monitoring Your Heart Rate

Exercise doesn't have to be painful to be effective. On the contrary, research has shown that simply by raising your heart rate and maintaining it within specific training zones, for specific lengths of time, you can actually maximize the benefits of your workout program.

The fact is, within these training zones is where your body burns stored fat with the greatest efficiency. Based upon your age and weight, these training zones reflect activity levels that range from 60 to 90% of your maximum heart rate. Which is why monitoring your heartbeat is so important if you want maximum results from your workouts.

Experts generally agree that the intensity of the workout for the average person should be between 60% and 85% of their maximum, although a sedentary person might start out even lower depending on age, health and how active he or she has previously been.

Follow the steps below to determine your target heart rate:

1. **Take your heart rate:**
   - **A.** Keep moving on the treadmill.
   - **B.** Place the first two fingers of your right hand on your neck, just under your jaw and to the right of your Adam's apple.
   - **C.** Press in slightly until you feel a pulse.
   - **D.** Count the number of beats you feel for fifteen seconds.
   - **E.** Multiply the number of beats by 4 to get your heart rate per minute.
2. **Determine your target heart rate .**
   - **A.** Use the chart below to determine your target heart rate:

Approx. Age	Maximum Heart Rate	85% Heart Rate (Should be less than)
20	200	170 beats per minute
30	190	162 beats per minute
40	180	153 beats per minute
50	170	145 beats per minute
60	160	136 beats per minute
70	150	128 beats per minute

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Visit our website at www.ecybex.com/education to use the body mass calculator, calorie calculator, and to get performance training tips.

4 - Preventive Maintenance

Regular Maintenance Activities

Preventive maintenance activities must be performed to maintain normal operation of your treadmill. Keeping a log sheet of all maintenance actions will assist you in staying current with all preventive maintenance activities. See Log Sheet in this chapter.

Cleaning Your Treadmill

When cleaning your treadmill spray a mild cleaning agent, such as a water and dishsoap solution, on a clean cloth first and then wipe the treadmill with the damp cloth.

! CAUTION: Do not spray cleaning solution directly on the treadmill. Direct spraying could cause damage to the electronics and may void the warranty.

! WARNING: To prevent electrical shock, be sure that power is shut off and the treadmill is unplugged from the electrical outlet before performing any cleaning or maintenance procedures.

After Each Use — Wipe up any liquid spills immediately. After each workout, use a cloth to wipe up any remaining perspiration from the handrails and painted surfaces.

Be careful not to spill or get excessive moisture between the edge of the display panel and the console, as this might create an electrical hazard or cause failure of the electronics.

As Needed — Vacuum any dust or dirt that might accumulate under or around the 700T. Motors are especially susceptible to dust and dirt, and restricted airflow can prevent adequate cooling that could shorten motor life. Cleaning this area should be done as often as indicated in the *Service Schedule.*

! WARNING: Keep wet items away from inside parts of the treadmill. Electrical shock could occur even if the treadmill is unplugged.

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To clean the motor components, you must remove the two Phillips head screws that hold the motor cover in place. Lift the cover, and put it and the screws aside. Use a vacuum attachment or hand vacuum to clean the exposed elevation assembly, drive motor, lower electronics and the surrounding areas.

Also use a dry cloth for the areas that you can't reach with the vacuum cleaner. If the machine has not been used for some time or is excessively dirty, use a *dry* cloth to wipe all exposed areas. Replace the cover and screws when finished.

With the help of another person, lift the rear of the treadmill and roll it back from its present position so as to vacuum the floor area underneath the unit. Wipe clean the underside of the 700T to prevent dirt and dust build-up. When finished, return the treadmill to its normal position.

Contact Heart Rate Grips — Contaminants, such as hand lotions, oils or body powder, may come off on the contact heart rate grips. These can reduce sensitivity and interfere with the heart rate signal. It is recommended that the user have clean hands when using the contact heart rate. Clean the grips using a cloth dampened with a cleaning solution containing alcohol. The grips are the only part of the treadmill you should use a cleaning solution containing alcohol.

In addition, the nickel plating on the 700T may become tarnished and blackened with time. This may reduce sensitivity and interfere with the heart rate signal. Use an emery cloth to remove the tarnish from the exposed nickel plating on the heart rate grips.

Running Belt Maintenance

Belt and Deck — Clean the belt and the deck surfaces to minimize the effect of friction between the wood deck and the running belt. Clean the underside of the running belt and the top of the running deck surface by wiping them with a clean dry towel. This should be done often to prevent premature wear of the deck, running belt, and the drive motor system. See the *Service Schedule* in this chapter to determine the minimum recommended cleaning.

The running belt may become loose and slip on the drive roller with each foot plant. The 700T is equipped with visual indicators of belt tension. These are located at the rear of the treadmill where the two 3/4" bolts protrude from the plastic end caps. See Figure 1. These are designed to indicate if the running belt is at the proper tension to insure safe operation of the unit. If the belt has become loose, the silver colored washer located under the bolt will move out slightly from the protruding tab molded in the end cap. See the *Service Schedule* in this chapter to determine the minimum recommended checking of the belt tension.

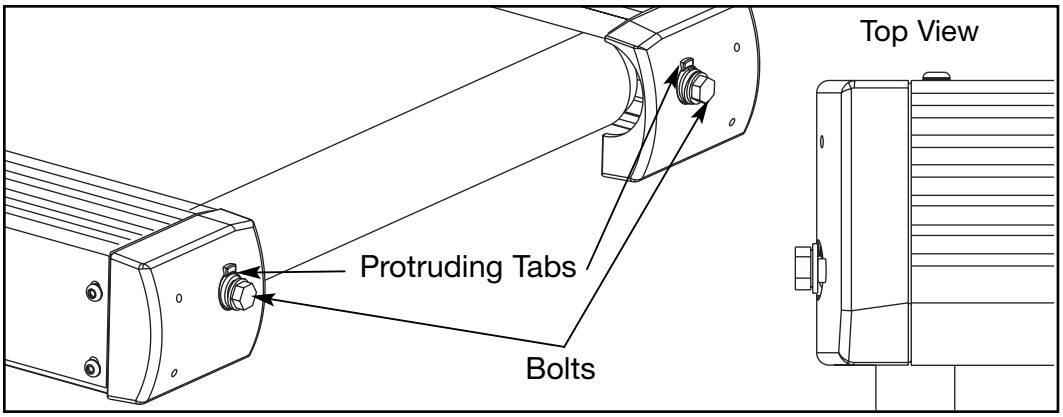

Figure 1

Re-tensioning and Re-centering the Belt — Follow the procedure below.

Tools Required

- 3/4" wrench

1. Re-tension the belt.

A. Use a 3/4" wrench to turn each bolt clockwise until the silver washers are flush with the protruding the tab on the end caps. See Figure 1.

B. Turn the power on and press the **Manual** key. Press the **Up Arrow** to bring the speed up to 3.5-4 mph (5.6-6.4 kph).

C. Allow the treadmill to run for a minute or two. Observe the bolts and silver washers. If they begin to protrude or retract turn the treadmill off and adjust the bolts. Follow the next step to be sure the belt is centered.

! CAUTION: Be careful not to over tighten the belt. Over tightening the belt can create excessive tension on the front and rear rollers.

! CAUTION: While centering the belt choose one bolt to adjust. Do not adjust both bolts.

2. Re-center the belt.

A. With the treadmill running at 5 mph (8 kph) observe the running belt. If the belt tracks off center to the right or left the deck will become exposed. Use a 3/4" wrench to tighten the rear roller bolt on the side of the treadmill toward which the belt is moving. For example: If the belt moves to the right and the deck becomes exposed on the left, use a wrench to tighten the bolt on the right side of the frame, tighten about 1/2 of a turn (clockwise) and wait 30 seconds. If the belt does not move back to the center of the treadmill, make another adjustment to the

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same bolt. Once the running belt has been adjusted closer to the center of the treadmill use about 1/4 of a turn until the belt has been stabilized.

B. After the belt has been centered, check the belt tension again. Make sure the running belt tension is tight enough so that the belt does not slip or hesitate when stepped on. Walk on the treadmill at 3.5-4 mph (5.6-6.4 kph) and every 4th to 5th step throw your weight into your step to feel if the belt is slipping. If the belt does slip, use a wrench to equally tighten ***both*** rear roller adjustment bolts 1/2 of a turn (clockwise). Adjust the belt until no further slipping is felt. If the running belt continues to slip the drive belt could be loose.

NOTE: *The springs may eventually compress slightly. If they compress the silver washers may no longer be flush with the protruding tab on the end caps when the belt is properly tensioned. The washers will be positioned deeper into the end cap and not be as visible.*

Checking the Belt and Deck Surfaces — The running belt and deck should be checked periodically for any excessive wear. In an effort to make sure that the running belt operates properly, visually inspect the belt on a weekly basis to make sure that there are no tears or fraying in the belt material.

To inspect the edges of the belt, it is necessary to remove the motor cover and plastic side rails. Follow these steps:

Tools Required
- Phillips head screwdriver
- 3/16" Allen wrench
- Dry towel

1. Turn the power off.

A. Turn the main power switch on the front panel to the off (O) position.

B. Unplug the treadmill from the power outlet.

2. Remove the motor cover and side rails.

A. Remove the two Phillips head screws that fasten the motor cover to the frame. Lift the cover and set it aside. This will allow you to remove the side rails. See Figure 2.

B. Using a 3/16" Allen wrench, remove the two button head screws on the sides of each side rail. See Figure 2.

C. Grasp the top edge of each side rail and pull up and away from the deck. This will enable you to see the deck and edges of the belt. It is not necessary to remove the side rails completely off the frame.

3. Check the belt and deck condition.

A. Look at the edges of the belt while you roll it by hand. If the belt has any rips or looks excessively worn the belt needs to be replaced.

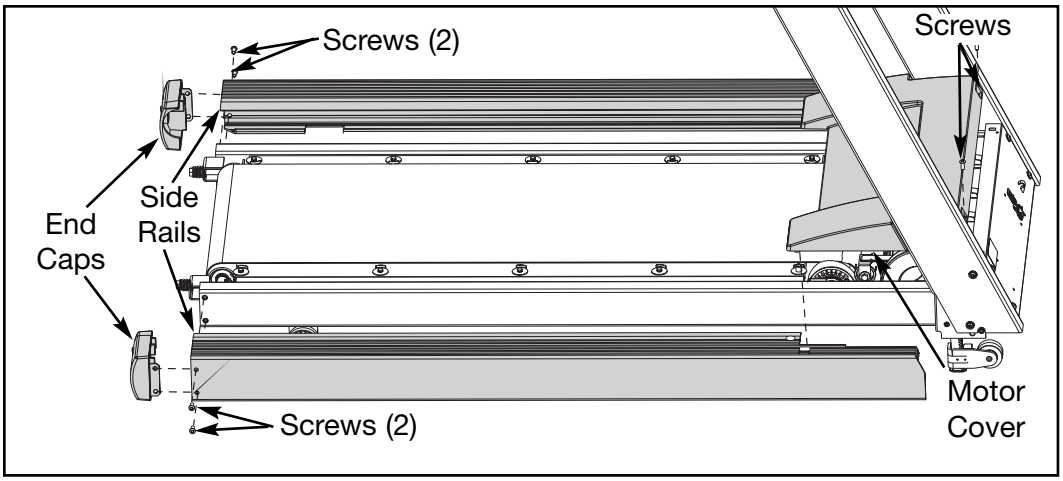

Figure 2

B. Run your hand under the belt on the top of the deck surface. If you feel excessive ridges or cracks, or if the deck feels grooved yet highly polished, the deck should be flipped so that an unused surface faces the top. If the deck is worn on both sides it should be replaced. In time, a worn belt and deck can cause high current draw and ultimately, motor failure. For instructions on replacing the belt and deck, see *Running Belt and Deck* in the the *Service* chapter.

4. Clean under the belt.

A. To minimize the effect of friction between the deck and the running belt, Cybex recommends cleaning the underside of the running belt and the top of the running deck surface by wiping them with a clean, dry towel. This cleaning should be done each time you check the belt and deck condition to prevent premature wear of the deck, running belt and the drive motor system. See the *Service Schedule* in this chapter.

5. Replace the side rails and motor cover.

A. After completing the inspection and cleaning of the deck surface, snap the side rails back down into their original position.

B. Using a 3/16" Allen wrench, attach the two button head screws on the sides of each side rail. See Figure 2.

C. Lower the motor cover in place and tighten the two Phillips screws. See Figure 2.

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Other Preventive Maintenance

Cybex recommends that the following maintenance activities be completed by a qualified service technician. These activities should be performed at the recommended intervals listed in the *Service Schedule* (located in this chapter):

Measure the motor brushes and replace worn motor brushes
Rotate, flip and replace the running deck.
Replace the running belt
Check the current draw
Measure motor voltage at maximum speed, with no load

Refer to the *Service* chapter for detailed procedures when completing the tasks listed above. If you need to order a manual, call Cybex at 800-766-3211 or in some areas call 508-533-5183.

Service Schedule

All of the activities listed below should be performed at the time of reaching the mileage listed. As a aid to keep this schedule, Service Reminders will prompt you when an activity is due. After completing the activities required, you can clear the log by following the instructions in the *Service* chapter under *Diagnostic Tests, d12*.

Odometer Reading in Miles (Km)	Check Running Belt & Tension/Track as needed	Vacuum debris inside hood cover and clean treadmill	Rotate the Deck	Replace the Running Belt	Flip the Running Deck	Replace the Running Deck	Check the current draw	Measure Motor Brush Length	Measure Motor Voltage at Max Speed, No Load
500 (805)	X								
m1: 5000 (8046)	X	X							
m2: 10000 (16093)	X	X	X	X					
10500 (16898)	X								
m3: 15000 (24140)	X	X			X			X	
m4: 20000 (32187)	X	X		X					
20500 (32992)	X								
m5: 25000 (40234)	X	X	X						
m6: 30000 (48280)	X	X		X		X	X	X	X
30500 (49085)	X								
m7: 35000 (56327)	X	X							
m8: 40000 (64374)	X	X	X	X					
40500 (67178)	X								
m9: 45000 (72420)	X	X			X		X	X	X
m10: 50000 (80467)	X	X		X					
50500 (81272)	X								
m11: 55000 (88514)	X	X	X						
m12: 60000 (96560)	X	X		X		X	X	X	X
60500 (97365)	X								
m13: 65000 (104607)	X	X							
m14: 70000 (112654)	X	X	X	X					
70500 (113459)	X								
m15: 75000 (120701)	X	X			X		X	X	X
m16: 80000 (128748)	X	X		X					
80500 (129552)	X								
m17: 85000 (136794)	X		X						
m18: 90000 (144841)	X	X		X		X	X	X	X

115V Unit Current Draw: 160 lbs. user displayed current of 10.9 Amps at 0% Grade. Max current 17.9.
220V Unit Current Draw: 160 lbs. user displayed current of 9.1 Amps at 0% Grade. Max current 15.4.

Minimum brush length, as measured from top of 'box' shape to the bottom: 0.438 (7/16") (1.1 cm)

Running belt should not noticeably slip when loaded at 3.0 MPH. If so, tighten each rear bolt 1/4 turn clockwise and retest.

Motor voltage at 10.0 MPH no-load should not go below:
115V Unit: 83 Volts
220V Unit: 168 Volts

4 Preventive Maintenance
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Other Preventive Maintenance 4-6
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Log Sheet

Serial Number _____ Date of Installation _____

Date of Data Collection									
Total Miles/Kilometers									
Total Hours									
Motor Current @ 3 mph (4.8 kph)									
Motor Voltage @ 10 mph (16.1 kph)									
- without load									
- with 160 lbs. load (72 kg)									
Notes:									
Total Miles/Kilometers									
Total Hours									
Motor Current @ 3 mph (4.8 kph)									
Motor Voltage @ 10 mph (16.1 kph)									
- without load									
- with 160 lbs. load (72 kg)									
Notes:									
Total Miles									
Total Hours									
Motor Current @ 3 mph (4.8 kph)									
Motor Voltage @ 10 mph (16.1 kph)									
- without load									
- with 160 lbs. load (72 kg)									
Notes:									
Total Miles/Kilometers									
Total Hours									
Motor Current @ 3 mph (4.8 kph)									
Motor Voltage @ 10 mph (16.1 kph)									
- without load									
- with 160 lbs. load (72 kg)									
Notes:									

5 - Setup & Assembly

Quick Setup

Quick Setup - For Experienced Fitness Professionals Only

1. The power requirements for this treadmill are a grounded, dedicated circuit, and one of the following: 115 VAC, 60 Hz and 20 amps, or 230 VAC, 50 Hz, and 15 amps, or 208/220 VAC, 60 Hz and 15 amps. The location should be level, with good ventilation, and not in an area of high humidity.
2. Assemble the treadmill using the instructions in the *Setup & Assembly* chapter.
3. Operate treadmill at all speeds and elevations to confirm proper operation.
4. Connect CSAFE equipment if applicable.
5. Refer to *Setting Operations Options* to see if any changes are necessary; in most cases, the default values are the desired settings.

Log Sheet 4-8

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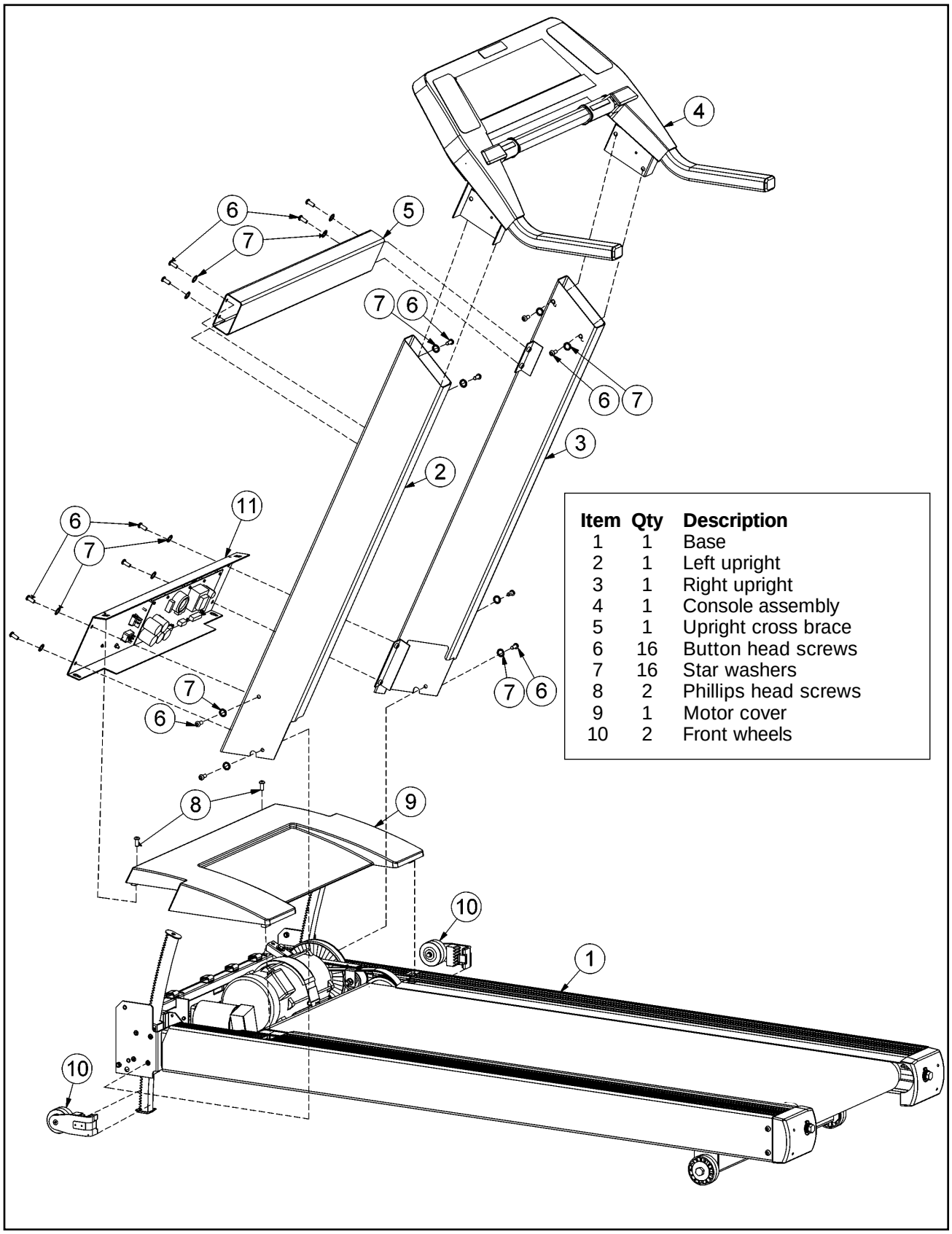
Choosing & Preparing a Site

Before you assemble the treadmill be sure to select a suitable site and have the proper electrical outlet power available for optimum operation and safety. See the *Electrical Power Requirements* section below for direction in locating your treadmill's voltage requirements.

The area you select for the 700T should be well lit and well ventilated. Locate the treadmill on a structurally sound and level surface (do not place in recessed areas or on plush carpet) a few feet away from walls and other equipment. Each side of the treadmill should have a 39" (1 m) minimum space. Behind the treadmill should be 78" (2 m) minimum of space. Allow enough clearance for safe access and passage during use of the machine. If the 700T is to be located above the first floor, place it near or above major support beams. If the area has a heavy, plush carpet, the airflow around the base of the machine may be restricted or the carpeting may interfere with the moving parts. To protect the carpeting and the machinery, place a 3/4" (1.9 cm) thick wood base under the treadmill.

Do not install the 700T in an area of high humidity, such as in the vicinity of a steam room, sauna, indoor pool, or outdoors. Exposure to extensive water



Item	Qty	Description
1	1	Base
2	1	Left upright
3	1	Right upright
4	1	Console assembly
5	1	Upright cross brace
6	16	Button head screws
7	16	Star washers
8	2	Phillips head screws
9	1	Motor cover
10	2	Front wheels

Figure 1

vapor, chlorine, and/or bromine could adversely affect the electronics as well as other parts of the machine.

A comfortable environment will help you enjoy your exercise routine and give you additional motivation to continue.

Electrical Power Requirements

This treadmill is for use on a grounded, dedicated circuit, and one of the following: 115 VAC, 60 Hz and 20 amps, or 230 VAC, 60 Hz, and 15 amps, or 220/240 VAC, 50 Hz and 15 amps. Contact your electrician if you have any doubts about your electrical service.

Do not use a ground plug adapter to adapt the 3-prong power cord plug to a non-grounded electrical outlet. Do not use an extension cord.

Unpacking

Unpack and remove the treadmill parts from the shipping container. Leave the base in the box at this time. Leave the hardware in the bags at this time. Check for the following parts. See Figure 1. If any of the parts are missing contact your Cybex dealer.

- Base
- Uprights (left and right)
- Console assembly
- Cross brace
- Motor cover
- CR lower electronics PCB and panel assembly
- Front wheels (2)
- Owner's Operating Manual with registration card (1, not shown)

Hardware Bags

- Phillips head screws#6-32 x .50 for the front motor cover (2)
- Button head screws 5/16-20 x .75 for assembly (16)
- Star washers 5/16 (16)
- Allen wrench (Hex key), 3/16"
- Wire ties (2)
- Rubber foot pads (2, not shown)

Tools Required

- Phillips head screwdriver
- Allen wrench 3/16" (supplied)

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Assembling the Treadmill

To ensure correct assembly of the treadmill, carefully follow these steps:

NOTES: • *In this manual the words "left" and "right" denote the treadmill user's point of view.*
• *Two people are needed to assemble this treadmill.*
• *Leave the anti-static foam on the console until the treadmill is completely assembled.**

1. Move the base into position.

A. Remove the boxes, parts, and plastic wrapping (*except for the anti-static foam on the console handgrips) from the top of the base.

B. Check to be sure that no parts are missing.

C. Clip a wheel on each elevation gear rack. See Figure 2.

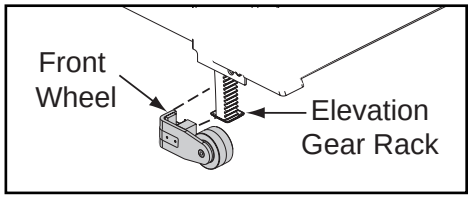

Figure 2

D. Lift the treadmill from the back and roll it to the location you intend to leave it.

2. Attach the right upright.

A. Identify the left and right uprights. The left will have a decal at the bottom.

B. Attach the right upright to the base using two button head screws and two star washers. Finger-tighten the screws, leaving them fairly loose at this time. See Figure 3.

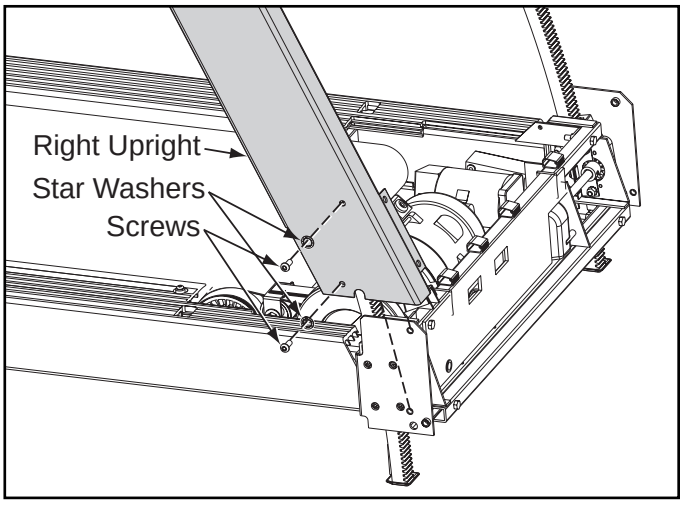

Figure 3

3. Attach the upright cross brace.

A. Attach the upright cross brace to the right upright using two button head screws and two star washers. Finger-tighten the screws, leaving them fairly loose at this time. See Figure 4.

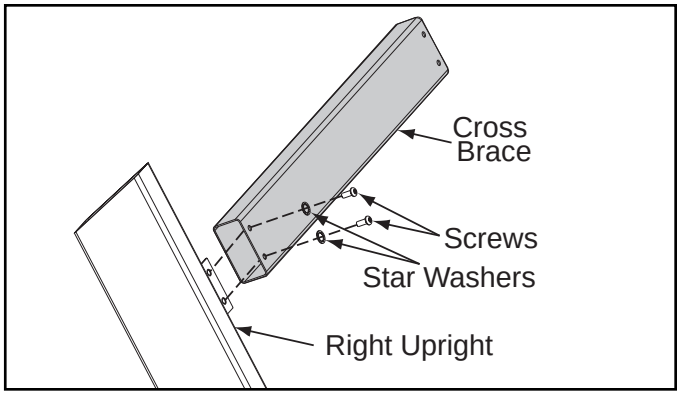

Figure 4

4. Attach the console to the left upright.

A. Place the console assembly on the floor with the display side facing down and place the left upright on the floor with the decal end farthest away from the console. See Figure 5.

B. Thread the display cable through the inside of the left upright from top to bottom. See Figure 5.

C. Pull the cable out of the bottom of the upright. See Figure 5.

D. Slide the support over the console's left mounting bracket and loosely fasten the support to the mounting bracket using two button head screws and two star washers. Leave both screws fairly loose at this time. See Figure 5.

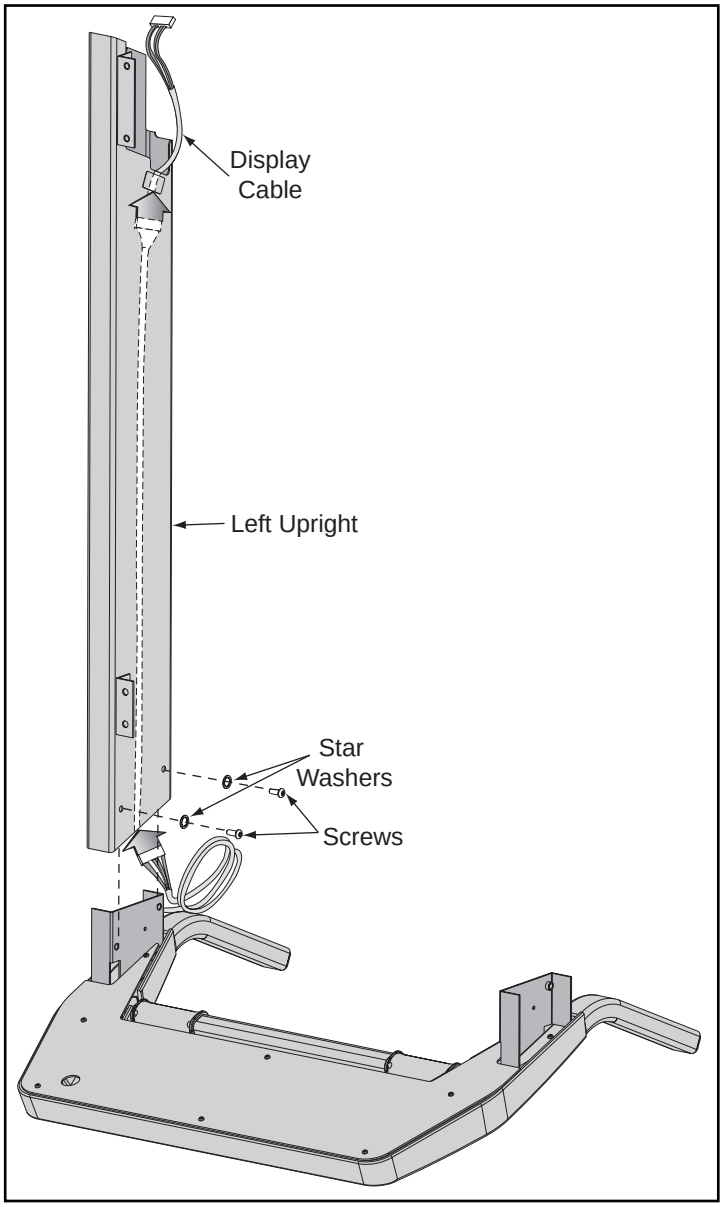

Figure 5

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! CAUTION: Be sure that the display cable does not get pinched, cut or damaged during this process.

5. Attach the console and left upright to the treadmill.

A. Grasp the display cable and hold it against the inside face of the upright while lifting the console and attached left upright assembly.

B. Place the assembly in position on the treadmill base. See Figure 6. Keep the display cable away from the elevation rack. Be sure that the display cable does not get pinched, cut or damaged during this process.

C. Using the Allen wrench, loosely attach two button head screws and two star washers in three locations; 1.) into the top of the right upright, 2.) into the cross brace and 3.) into the bottom left upright. See Figure 6.

6. Using the Allen wrench, tighten all the button head screws at this time.

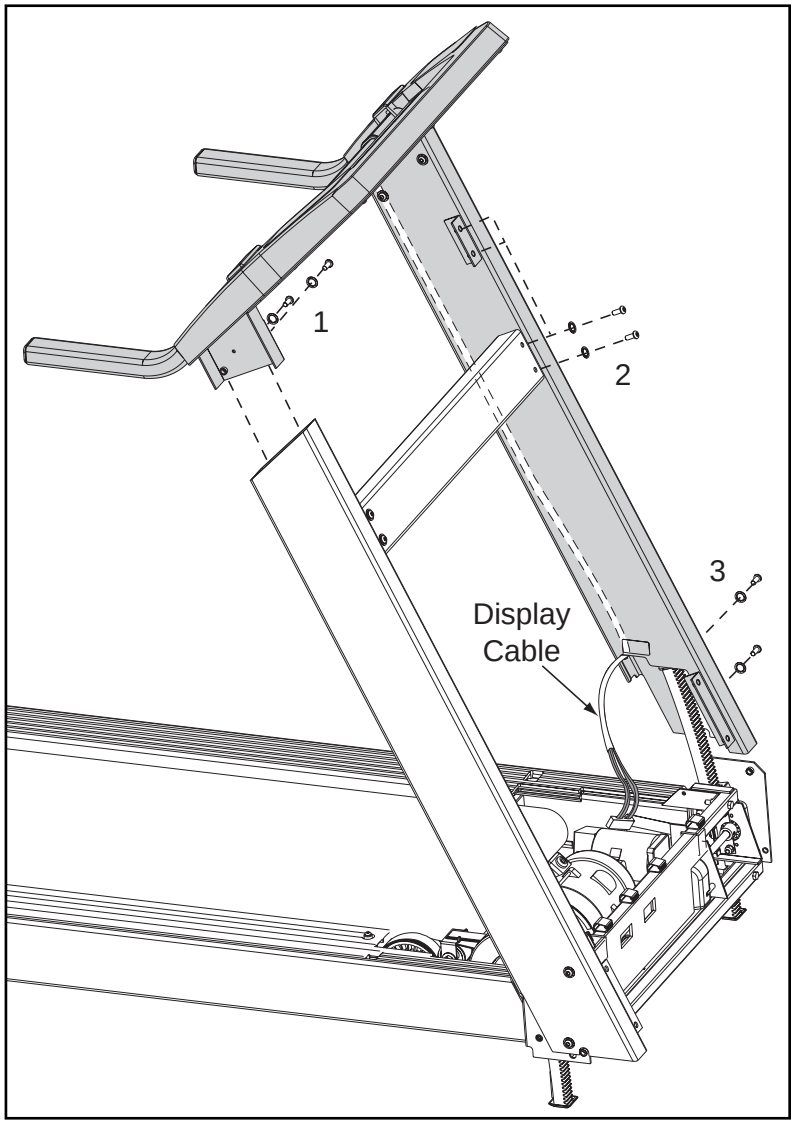

Figure 6

7. Connect the cables.

A. Note that there are four threaded holes on the treadmill's front frame used to fasten the front end panel to the treadmill base. Temporarily insert button head screws in the two bottom threaded screw holes. Screw the screws in approximately halfway. See Figure 7.

B. Pick up the front panel and hold it parallel to the floor, with the printed circuit board facing up. Temporarily mount the panel by placing it over the two button head screws on the treadmill's front end as referenced in the previous step. Use the screws to support the panel much like a shelf. See Figure 7.

C. Ensure the black mark on the display cable is visible, and wire tie it to the frame as it exits the upright. See Figure 7.

D. Pinch the retaining clips (to open them) and route the display cable through each of them across the top of the treadmill. See Figure 7. Close the retaining clips.

E. Plug all cables into the lower board: (from left to right) the motor/choke connector, the elevation connector, the display cable connector and the speed sensor connector. See Figure 7.

8. Attach the front panel.

A. Remove the front panel (with the cable connectors still attached) off the two button head screws. See Figure 7.

B. While holding the panel close to the treadmill, remove the two button head screws previously used to support the front end of the treadmill base.

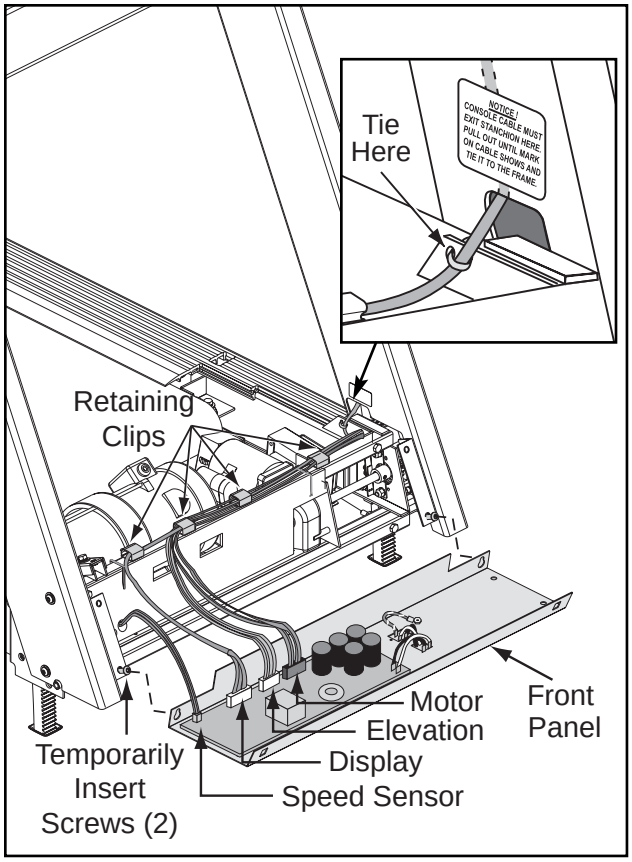

Figure 7

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C. Place the front end panel in position on the front of the treadmill. See Figure 8.

D. Using the Allen wrench, attach the front end panel with four button head screws and four star washers. See Figure 8.

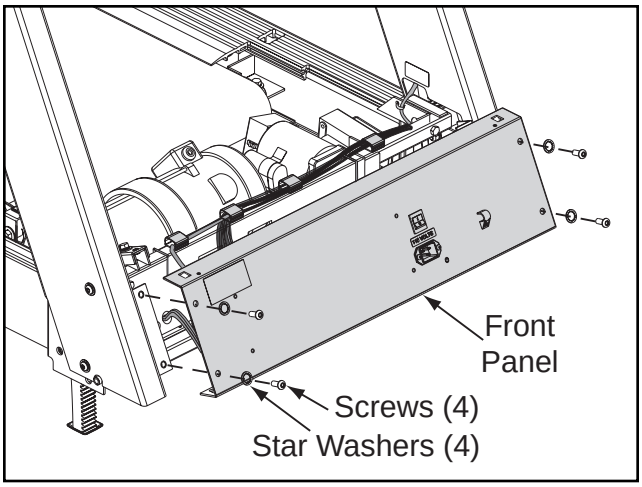

Figure 8

9. Attach the motor cover.

A. Place the motor cover in position on the base. See Figure 9.

B. Using a Phillips head screwdriver, tighten the two screws to fasten the motor cover to the base. See Figure 9.

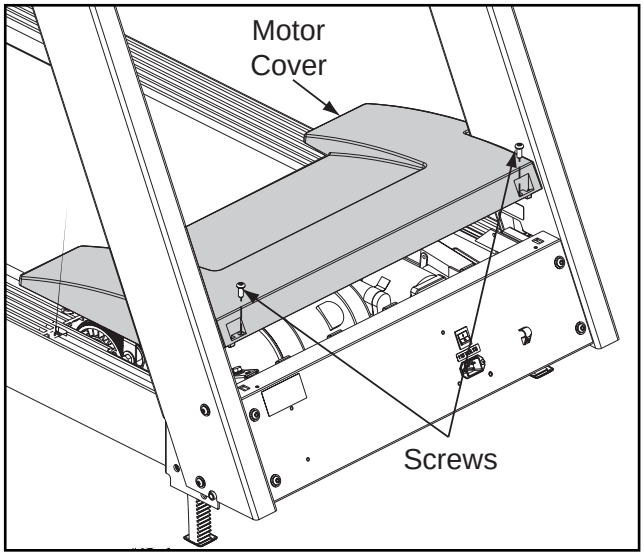

Figure 9

10. Position the pads.

A. One person should lift the front end of the treadmill, while a second person places a rubber pad underneath each elevation gear rack.

11. Connect CSAFE.

NOTE: *If necessary, install optional CSAFE-compatible communications. If not skip to the next section,* ***Test the 700T Operation***

A. Plug the CSAFE communications cable into the RJ-45 (8-pin) female connector located on the back of the console.

! WARNING: Be sure that all electrical requirements are met as indicated in the specifications at the front of the manual and at the beginning of this chapter prior to proceeding.

Test the 700T Operation

Use the following instructions to test the full speed and incline range of the treadmill and to check the belt for proper operation.

! CAUTION During this procedure STAY OFF THE RUNNING BELT! Stand with your feet on the side platforms.

1. Without anyone on the treadmill, plug the power cord into the front end of the treadmill and into a power outlet from a grounded, dedicated circuit, and 115 VAC, 60 Hz and 20 amps, or 230 VAC, 50 Hz, and 15 amps, or 208/220 VAC, 60 Hz and 15 amps.

2. Locate the on/off (I/O) power switch on the front of the treadmill. Toggle it to the on position (I).

3. The control panel will light up and continuously display the prompt message **PRESS START** when the treadmill is in *Dormant Mode* with the on/off power switch turned on (I) and the treadmill power cord plugged in. (Cybex recommends that the treadmill be unplugged or the On/Off (I/O) power switch turned Off (O) when it is not in use.)

NOTE: *Cybex recommends that the treadmill be unplugged or the on/off (I/O) power switch turned off (O) when it is not in use.*

4. Press the **START/ENTER** key to enter the *Program Select Mode*.

5. Upon entering the *Program Select Mode*, the center window lights to prompt the user to press the appropriate keys to change the program and/or level. The display shows "**- + PROGRAM** and **v^ LEVEL**." After five seconds, the **PRESS START** message will begin to flash.

6. Press **START/ENTER** to accept the default program, P1 Manual Mode. The treadmill begins a countdown in both display windows, "**3...2...1**," and sounds a tone for each count. After it reaches one (1), the treadmill gives a steady tone, and then starts accelerating the belt to reach 1 mph (1.6 kph).

7. The left display will flash the incline set point of 0% grade and the right display will flash the speed set point of 1.0 until the treadmill reaches these settings, at which time the values will stop flashing and remain steadily illuminated.

8. Press and hold down the **SPEED +** key until the treadmill reaches a speed of approximately 4 mph (6.4 kph), as indicated on the display.

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9. Observe the belt to see that it is running properly; it should stay centered in the middle of the deck. If you have problems with the running belt operation, see *Running Belt Adjustments* in the *Preventive Maintenance* chapter.

10. Run the treadmill through its full speed range. First press the **SPEED +** key until the treadmill reaches its highest speed, 10 mph (16.1 kph). Then press the **SPEED -** key until the treadmill is back to 1.0 mph (1.6 kph).

As you press the **INCLINE** or **SPEED** increase or decrease keys, the left display will flash the selected incline and the right display will flash the selected speed. The control panel will continue to flash these settings as the treadmill "seeks" to reach the selected incline and/or speed values.

When the treadmill reaches the set incline and speed, the displays will stop flashing and remain steadily illuminated to indicate that the desired settings have been reached.

11. Run the treadmill through its full % grade range. Press the **INCLINE ^** key until the treadmill reaches its highest grade (15%). Then press the **INCLINE v** key until the treadmill is back to 0% grade.

12. Press **STOP** three times to stop the running belt, end the checkout session, and return the display to *Dormant Mode* (with continuous display of the **PRESS START** prompt message).

Finish your setup of the 700T by setting the operation options as desired.

Setting Operation Options

The 700T's *Setup Mode* allows you to configure the following features:

1. *Memory Retention Mode*
2. *Metric/English Measurement Units*
3. *Programs On/Off Mode*
4. *Time Limits (in Manual Mode, only)*
5. *Pause On/Off Mode*
6. *Service Reminders*

The description of each feature, as well as the procedure to access the *Setup Mode*, is listed below:

NOTE: *The Setup Mode can be accessed only while the treadmill is in the Dormant Mode, i.e., the On/Off switch must be turned On (I) and the treadmill belt must not be moving.*

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To enter the *Setup Mode,* press and hold the **SHIFT** key for three seconds. The left and right display windows will illuminate. The left display window will show the status of the *Memory Retention Mode* as either "on" or "oFF." The right display window will show the status of the measurement units, "E" for English or "nn" for metric.

To advance to the *Program On/Off Mode,* press the **SHIFT** key once after entering the *Setup Mode*. The left display window will indicate the status of the *Program On/Off Mode* as either "P on" or "PoFF." If "PoFF" is selected, the right display window will indicate the time limit setting in minutes.

To advance to the *Pause On/Off Mode,* press the **SHIFT** key once again. The left display window will indicate the status of the *Pause On/Off Mode* as either "on" or "oFF." The right window will display, "PAUS."

1. Memory Retention Mode

The *Memory Retention Mode* feature remembers the last program number, program level and weight setting used.

Memory Retention On: When this feature is enabled ("on"), the 700T uses your last program values as the new default program, level, and weight, replacing P1 and 160 lbs. (73 kg) as the standard defaults. The memory retention feature is convenient, if you consistently use the same program routine, because it allows you to quickly start the treadmill by simply pressing **START** twice. The stored default values are automatically entered from the last workout.

Additionally, the *Memory Retention Mode* allows you to review your last program, program level, maximum grade, maximum speed, calories burned **(CAL)** and **DISTANCE** run, by pressing the **SHIFT** key when in the *Dormant Mode*.

Memory Retention Off: Setting the *Memory Retention Mode* feature to "oFF" resets the 700T defaults to the standard values. The standard program default is P1 (Manual Mode) and the standard default weight setting is 160 lbs. (73 kg). You can toggle the Memory Retention mode "on" and "oFF" by using the **v^** keys.

2. Metric/English Measurement Units

This feature allows you to display speed, distance, and weight in either English or metric units of measurement. You can toggle between the "E" for English or "nn" for metric by using the **- +** keys.

3. Programs On/Off Mode

The programs on/off mode can be used to prevent or "lock out" the use of the 700T's programs. When "P on" is selected, the programs are enabled and there is no time limit set. The right display window will not be illuminated. When "PoFF" is selected the programs are turned off and they are not available for use. The 700T can only be run manually. To toggle between "P on" for programs on and "PoFF" for programs off, use the **v^** keys.

4. Time Limits (used in *Manual Mode,* only)

Time limits can be set on the use of the treadmill in the manual mode if the programs on/off mode is set to "Poff." The right display window will indicate the time limit setting, in five minute increments, from 5 to 995. The number of minutes for the time limit setting can be changed by using the **- +** keys.

NOTE: *Time limits can only be set when programs are deactivated, "PoFF" in the Programs On/Off Mode. Time limits can not be set when programs are activated, "P on" in the Programs On/Off Mode.*

5. Pause On/Off Mode

The pause on/off mode can be used to turn the pause function on or off. When "on" is selected, the pause function is enabled for a pause time of five minutes. When "oFF" is

selected, the pause function is turned off and not available for use. To toggle between "on" and "oFF," use the **v^** keys.

6. Service Reminders

Service Reminders occur every 5000 miles to bring your attention to the regular scheduled maintenance which should be performed for maximum treadmill life and performance. Use the **- +** keys to toggle the feature on / oFF*. Press **ENTER** to accept any changes and exit *Setup Mode*.

*Service Reminders are an option and can be turned off if you already have a regular schedule of maintenance. In either case, follow the guidelines in the *Service Schedule* in the *Preventive Maintenance* chapter as a minimum for maintaining your Cybex Treadmill for maximum life and performance.

Your treadmill is now ready for use. Turn to the **Operation** chapter to learn how to operate the treadmill. You should begin with walking speeds first, to be sure everything is functioning properly.

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6 - Customer Service

Contacting Service

Hours of phone service are Monday through Thursday from 8:30 a.m. to 6:00 p.m. and Friday from 8:30 a.m. to 5:00 p.m. Eastern Standard Time.

For Cybex customers living in the USA, contact Cybex Customer Service at **800-766-3211**. Your options at this number include:

- Press **63** to place a parts order or to check parts order status.
- Press **64** to speak to a technical support representative regarding trouble shooting or to schedule a field service call.
- Press **65** to check status of a repair order only and you have your RRM number.
- Press **66** to check status of a dispatched field service call and you have your inquiry number.
- Press **67** for service of a medical or isokinetic product.
- Press **0** to go to the Cybex operator.

For Cybex customers living outside of the USA, contact Cybex Customer Service at **508-533-4300** or fax **508-533-5183**.

Order parts and find information on the web at www.eCybex.com or by email at techhelp@cybexintl.com.

Serial Number & Voltage

Your serial number can be found on the rear crossbar under the running deck. The voltage of your treadmill can be found on a label near the on/off (I/O) switch. For your convenience record your serial number and voltage below so that you will have it ready if you call Cybex Customer Service.

Serial Number _____ Voltage _____

Warranty

LIMITED WARRANTY TO NON-CONSUMER BUYERS:
Seller warrants, to the original non-consumer Buyer only, that any product manufactured by it, herein listed under "EXPIRATION OF LIMITED WARRANTIES FOR NON-CONSUMER BUYERS," will be free from defects in material and workmanship, under normal use and service according to the specified warranty duration listed, beginning from the date of installation. Seller's obligation under this

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warranty shall be strictly and exclusively limited to repairing or replacing free of charge, F.O.B. origin, those parts and materials which are, in Seller's judgment, defective. Seller cannot control the environment nor manner in which the products are used; therefore this warranty does not cover corrosion of the products during use, deterioration caused by conditions of use, the sufficiency of the application of finishes and/or cleaners, or the suitability of finishes and/or cleaners for the Buyer's environment. Seller does not warrant the normal maintenance repairs that are identified in the Seller's Owner's Manual. Seller assumes no responsibility for reimbursing repair or replacement expenses incurred without its prior written authorization. Buyer shall be responsible for all labor costs incurred in connection with such repair or replacement at the installation site unless agreed upon by Seller or covered herein. All costs of removing, packing and shipping defective products and parts shall be paid by the Buyer unless otherwise agreed by the Seller. If Seller's authorized representative determines in his sole and final discretion that the nature of the defect precludes remedy by repair or replacement of parts, Seller reserves the right to satisfy its warranty obligation in full by refunding the full purchase price upon return of all products to it, freight prepaid. The products or services of other manufacturers which are furnished by Seller are covered only by such warranties as are given by sold manufacturer to Seller. In this regard, Seller agrees to certify to Buyer the identity of the supplier of items claimed to be defective so that the Buyer may pursue warranty claims against that party.

EXPIRATION OF LIMITED WARRANTIES FOR NON-CONSUMER BUYERS:

Cybex Cardiovascular Products: Seller will warrant labor for 1 year; parts are warranted for 2 years except as follows: structural frame, 10 years; treadmill decks and belts 1 year. Refer to the "LIMITED WARRANTY FOR NON-CONSUMER BUYERS" paragraph above for transportation cost responsibility and further explanation of warranty coverage limitations and exclusions. The 400 and 410T are warranted for residential and light commercial use only.

Cybex Strength Products: Seller will warrant labor for 1 year. Parts are warranted for the time period indicated below. Refer to the "LIMITED WARRANTY" paragraph above for transportation cost responsibility and further explanation of warranty coverage limitations and exclusions. 10 years: structural frame; 2 years: rotary bearings, guide rods, pulleys, cams, weight stacks, cables, bushings, linear bearings, and other parts not listed; 120 days: upholstery and handgrips.

LIMITED WARRANTY TO CONSUMER BUYERS:

Seller warrants, to the original consumer Buyer only, that any product manufactured by it, herein listed under "EXPIRATION OF LIMITED WARRANTIES FOR CONSUMER BUYERS," will be free from defects in material and workmanship, under normal use and service according to the specified warranty duration listed, beginning from the date of installation. Seller's obligation under this warranty shall be strictly and exclusively limited to repairing or replacing free of charge those parts and materials which are defective. Seller cannot control the environment nor manner in which the products are used; therefore this warranty does not cover corrosion of product during use, deterioration caused by the conditions of use, the sufficiency of finishes and/or cleaners applied, or the suitability of finishes and/or cleaners for the consumer Buyer's environment. Seller does not warrant the normal maintenance repairs that are identified in the Seller's Owner's Manual. Seller assumes no responsibility for reimbursing repair or replacement expenses incurred without its prior written authorization. Seller reserves the right to satisfy its warranty obligation in full by refunding the full purchase price upon return of all products to Seller. The products or services of other manufacturers which are furnished by Seller are covered only by such warranties as are given by

said manufacturer to Seller. In this regard, Seller agrees to certify to Buyer the identity of the supplier of items claimed to be defective so the Buyer may pursue warranty claims against that party.

EXPIRATION OF LIMITED WARRANTIES FOR CONSUMER BUYERS:
The PG 400, 400S and 300T are warranted for residential use only.
The 400T and 410T are warranted for residential and light commercial use only.
Cybex Cardiovascular Products: Seller will warrant labor for 1 year; parts are warranted for 2 years except as follows: structural frame, 10 years, treadmill decks and belts 1 year.
Cybex Strength Products: Seller will warrant labor for 1 year; parts are warranted for 2 years with the exception of the structural frame which is warranted for 10 years.

DISCLAIMER OF WARRANTIES AND LIMITATION OF REMEDIES:
SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH REGARD TO GOODS OR SERVICES PROVIDED BY SELLER OTHER THAN THOSE SET FORTH HEREIN. IN THE CASE OF NONCONSUMER BUYERS, ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED, AND ANY WARRANTY OTHER THAN THE WARRANTIES EXPRESSLY PROVIDED HEREIN IS SPECIFICALLY EXCLUDED.
IN THE CASE OF CONSUMER BUYERS, THE DURATION OF ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTIES PROVIDED HEREIN.
SELLER WILL NOT BE LIABLE FOR ANY DIRECT OR INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES, LOSSES, OR EXPENSES, INCLUDING, BUT NOT LIMITED TO COMMERCIAL LOSSES, BUSINESS INTERRUPTION, OR DAMAGES RESULTING TO PROPERTY OTHER THAN THAT WHICH IS THE SUBJECT OF THE SALES TRANSACTION.
Notice to Consumer Buyers: Some states do not allow the exclusion or limitation of incidental or consequential damages and/or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

ALTERNATIVE DISPUTE RESOLUTION FOR NON-CONSUMER BUYERS ONLY:
SELLER RESERVES THE RIGHT TO MANDATE INFORMAL DISPUTE RESOLUTION TO SETTLE ANY OR ALL CLAIMS RESULTING FROM THIS SALES TRANSACTION. ALTERNATIVE DISPUTE RESOLUTION PROCEEDINGS WILL BE CONDUCTED IN THE STATE OF MASSACHUSETTS ACCORDING TO THE COMMERCIAL RULES OF THE AMERICAN ARBITRATION ASSOCIATION.
It is understood between the parties that damage to the product, ineffectiveness of the product, or other unintended consequences may result because of many factors including the manner of use or application of the product, all of which are beyond the control of the Seller. All such risks shall be assumed by the Buyer.

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PROCEDURE FOR OBTAINING WARRANTY PERFORMANCE:
TO SECURE THIS WARRANTY IN EVENT OF A DEFECT, BUYER MUST RETURN TO SELLER THE WARRANTY REGISTRATION CARD. CONTACT THE CYBEX CUSTOMER SERVICE DEPARTMENT WITH QUESTIONS REGARDING YOUR WARRANTY BY MAIL OR TELEPHONE FOR INSTRUCTIONS OR A RETURN AUTHORIZATION NUMBER AS PROVIDED BELOW.

Attn: Customer Service Department
Cybex International, Inc.,
10 Trotter Drive
Medway, MA 02053

Return Material Authorization (RMA)

The Return Material Authorization (RMA) system outlines the procedures to follow when returning material for replacement, repair, or credit. The system assures that returned materials are properly handled and analyzed. Follow the following procedures carefully.

Contact your authorized Cybex dealer on all warranty-related matters. Your local Cybex dealer will request an RMA from Cybex, if applicable. Under no circumstances will defective parts or equipment be accepted by Cybex without proper RMA and an Automated Return Service (ARS) label.

1. Call the Customer Service Hotline listed above for the return of any item that is defective.

2. Provide the technician with a detailed description of the problem you are having or the defect in the item you wish to return.

3. Provide the model and serial number of your treadmill. The serial number is located on the rear crossbar under the running deck. The serial number begins with a letter, for example: R09-101331100.

4. At Cybex's discretion, the technician may request that you return the problem part(s) to Cybex for evaluation and repair or replacement. The technician will assign you an RMA number and will send you an ARS label. The ARS label and RMA number must be clearly displayed on the outside of the package that contains the item(s) to be returned. Include a description of the problem, the serial number of the treadmill and the name and address of the owner in the package along with the part(s).

5. Forward the package through UPS to Cybex.
   Attn: Customer Service Department
   Cybex International, Inc.,
   10 Trotter Drive
   Medway, MA 02053

NOTE: *Merchandise returned without an RMA number on the outside of the package or shipments sent C.O.D. will not be accepted by the Cybex receiving department.*

Damaged Parts

Materials damaged in shipment should not be returned for credit. Shipping damages are the responsibility of the carrier (UPS, Federal Express, trucking companies, etc.)

Apparent Damage — Upon receipt of your shipment, check all boxes carefully. Any damage seen with a visual check must be noted on the freight bill and signed by the carrier's agent. Failure to do so will result in the carrier's refusal to honor your damage claim. The carrier will provide you with the required forms for filing such claims.

Concealed Damage — Damage not seen with a visual check upon receipt of a shipment but noticed later must be reported to the carrier as soon as possible. Upon discovery of the damage, a written or phone request to the carrier asking them to perform an inspection of the materials must be made within ten days of the date of delivery. Keep all shipping containers and packing materials: they will be needed as part of the inspection process. The carrier will provide you with an inspection report and the necessary forms for filing a concealed damage claim. Concealed damage is the carrier's responsibility.

Ordering Parts

Visit eCybex.com to shop for parts online, or fax your order to 508-533-5183. To speak with a customer service representative, in most areas call 800-766-3211. Otherwise call 508-533-4300.

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7 - Service

Service Instruction

! WARNING: All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

These activities should be performed at the recommended intervals listed in the *Service Schedule* in the *Preventive Maintenance* chapter:

Measure the motor brushes and replace worn motor brushes
Rotate, flip and replace the running deck.
Replace the running belt
Check the current draw
Measure motor voltage at maximum speed, with no load

See the detail procedures for each of these maintenance activities below.

Motor Brushes

! WARNING: Motor brush removal and replacement should be performed by a qualified service technician.

Cybex treadmill motors are of the DC variety, and thus have brushes in them to transfer power to the motor's armature. These brushes are made of a graphite / carbon compound not too unlike pencil lead. They do wear with use, and should be inspected at 15,000 miles (16898 km) and every 15,000 (16898 km) after (or sooner if your didn't replace them at the last inspection). Measure the length of the brush itself, and don't include the spring, cable, or spring mount post on the top of the brush. Brushes should be replaced when they are measured to be 7/16" (11mm) or less.

NOTES: *Motor brushes are wear items that will periodically need to be replaced. Both drive motor brushes must be replaced as a pair. This will ensure even commutator contact and brush wear. However, the negative brush will wear 20% faster than the positive brush. Therefore, always measure the negative brush length to determine whether you should replace the pair. The negative brush has a white lead and is facing the floor. You should still check the positive brush for cracks or chips.*
It is not necessary to remove the drive motor in order to reach the motor brushes. You can get at the lower brush from underneath the treadmill.

Tools Required

- Phillips head screwdriver (or hex key for some models)
- Large flat head screwdriver (or brush cap tool, part number FS-12263)
- Tape measure

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! WARNING: Keep wet items away from inside parts of the treadmill. Electrical shock could occur even if the treadmill is unplugged.

1. Turn the power on.

A. With the power cord plugged in turn the main power switch to the on (I) position.

2. Elevate the treadmill.

A. Without standing on the belt, press the **START/ENTER** key and begin running the treadmill.

B. Press the ^ arrow and elevate the treadmill fully.

3. Turn the power off.

A. While the treadmill is still fully elevated and running turn the main power switch to the off (O) position.

B. Unplug the treadmill from the power outlet.

4. Remove the motor cover.

A. Remove the screws that fasten the motor cover to the frame.

B. Lift the cover and remove it from the treadmill. Set the cover and screws aside.

5. Disconnect the motor cable.

A. Using a 3/16" Allen wrench, remove the four button head screws and four starwashers that hold the front panel in position.

B. Place the front panel on the floor or temporarily screw two of the button head screws into the frame where they came out, and then hang the front panel on the screws.

C. Avoid touching R34 and the black capacitors. Disconnect the motor cable. See Figure 1.

6. Remove the brush caps.

A. Using a large flat head screwdriver unscrew the two brush caps on the drive motor. The brushes should spring out. The lower brush cap may be difficult to remove with a long screwdriver. If you need a brush cap tool, order Cybex part number FS-12263.

NOTE: *If the brush doesn't spring out, you can use a small screwdriver or needle nose pliers to pry up the base of the brush spring. If the brush spring is broken, ensure no loose parts are left behind.*

7. Examine the brushes and commutator.

A. Inspect the commutator by looking through the top brush holder into the motor. Slowly spin the motor by turning the flywheel. Look for noticeable damage and for signs of wear such as arcing, pitting, burning, or uneven wear. Commutator bars that are 'dirty penny' brownish copper are in great condition. However, some commutator bars may

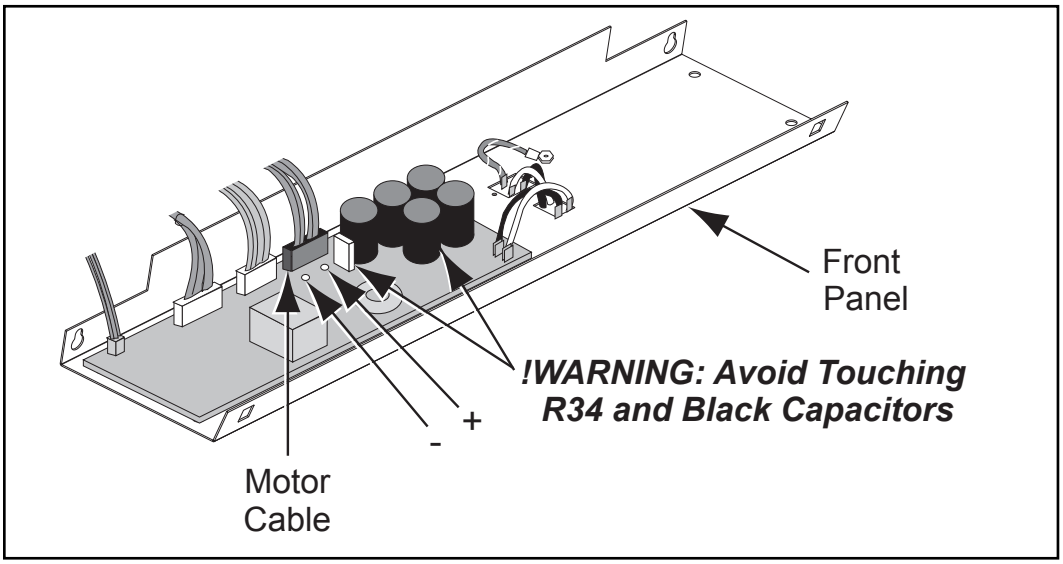

Figure 1

be pitted or blackened on one edge. Too many of these indicate a worn commutator, and the motor should be replaced. The commutator may be cleaned with narrow commutator stone if carbon build-up is present. (File down the stone if it won't fit in the brush holder hole.) Brush dust can be loosened from the brush holder area by lightly filing the surfaces. Dirt and brush dust inside the drive motor can cause a short and should be vacuumed out of the motor.

B. Inspect the brushes for signs of excessive wear or cracks. The motor brushes must be replaced if one or both is worn to .438" (7/16"/11.13mm) or less in length, is broken or chipped, has a broken spring, or binds in the motor. See Figure 2.

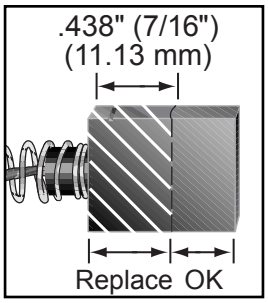

Figure 2

8. Secure the brushes.

A. Slide the brushes (new or original) into the motor brush holders. If the new brush does not slide in easily, the edges or corners of the brush can be lightly filed down. If cleaning the motor, (see step 6A), and filing the brush doesn't allow the brush to slide easily in the brush holder, the motor should be replaced.

NOTE: *The motor may make a clicking noise as new brushes wear in. If you reinstall the original brushes it is good to install them facing their original position. Reversing the orientation of the brush can cause a clicking noise during operation until the brushes wear in.*

9. Secure the brush caps.

A. Place each brush in its brush holder and carefully push the spring in while screwing on the brush cap. If the brush cap is damaged, order Cybex replacement part number HX-10300-2.

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10. Secure the front panel.

A. Avoid touching R34 and the black capacitors. Connect the motor cable. See Figure 1.

B. Using a 3/16" Allen wrench, secure the front panel to the frame with the four button head screws and four starwashers.

11. Secure the motor cover.

A. Lower the motor cover in position and install the two Phillips head screws that hold it in place.

12. Turn the power on.

A. Connect the treadmill to the power outlet.

B. Turn the main power switch to the on (I) position.

C. The treadmill will lower itself. Wait until the treadmill resets its elevation to 0%.

13. Clear the error log.

A. Enter *Diagnostic Test Mode,* press and hold **SHIFT**, then press **-.**

B. Display the error codes by pressing **START** (forward), **SHIFT** (backward) and scrolling to Test 11. View each error code by pressing **- +**. Make a note of the errors and refer to the manual for the interpretation of these errors.

C. To clear the entire error log press **v^** to exit Test 11, then press **START** to scroll to Test 12. Then press **v^** to cycle the display from ErrS (Error codes SET) to ErrC (Error codes CLEARED). With ErrC displayed press **START**.

D. Exit *Diagnostic Test Mode* by pressing **STOP**.

Motor Current & Voltage

! WARNING: This motor current and voltage procedure should be performed by a qualified service technician.

Check the Current Draw

Cybex recommends that a qualified technician check your motor current draw and measure motor voltage as scheduled in the *Service Schedule* in the *Preventive Maintenance* chapter. By performing these procedures you can evaluate the performance of your drive motor and help prevent premature failure.

Cybex commercial treadmills have the unique feature of monitoring motor current from the display board. The current measure is most accurate when used at 3.0 mph (4.8 km/h). With a 160 lb. (72.5 kg) person walking on the treadmill at this speed, the current measure number

displayed should not exceed 10.9 for a 115V unit, and 9.1 for a 220V unit. With a user of any weight, the current should not exceed 17.9 for a 115V unit and 15.4 for a 220V unit. If higher current values are shown, the next higher mileage service interval should be performed.

Measure Motor Voltage at Max Speed, No Load

A qualified Cybex service technician should perform this test. It involves opening up the front cover, gaining access to the electronic control board, and measuring the voltage on the motor leads. Measure this at 10 mph (16 km/h) with nobody on the treadmill. The measured voltage is an indication of the health of the motor. Motor voltage should not be below 83 volts DC for the 115V unit and 168 volts for the 220V unit. If below these minimums, the motor must be replaced.

Tools Required

- Phillips head screwdriver
- Flat head screwdriver
- 3/16" Allen wrench
- Voltage meter

1. Measure current draw.

A. Stand on the side rails and press the **START/ENTER** key and enter *Manual Mode*.

B. Enter *Diagnostic Test Mode,* by pressing and holding **SHIFT**, then press **-.**

C. Press **START** to scroll to d3. Press **SHIFT** if you need to scroll backward.

D. With the belt moving at 1 mph (1.6 kph), you will see a number displayed which represents motor current in DC current.

E. Without standing on the belt, press the **+** key to bring the speed of the treadmill up to 3 mph (4.8 kph). At 3 mph (4.8 kph) average current draw should be between 2.00 and 3.00 without anyone on the running belt.

F. Now, have a user walk on the belt at 3 mph (4.8 kph). The maximum current draw with a 160 lb. user should not exceed 17.9 for a 115V unit and 15.4 for a 220V. Even with a heavier user, the current should not be more than 15.4/17.9 respectively.

G. Press **STOP** to exit *Test Mode*.

2. Turn the power off.

A. Turn the main power switch in the front panel to the off (O) position.

B. Unplug the treadmill from the power outlet.

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3. Remove the motor cover and side rails.

A. Remove the two Phillips head screws that fasten the motor cover to the frame. Lift the cover and set it aside. This will allow you to remove the side rails.

B. Using a 3/16" Allen wrench, remove the two button head screws on the sides of each side rail.

C. Grasp the top edge of each side rail and pull up and away from the deck. This will enable you to see the deck and edges of the belt. It is not necessary to remove the side rails completely off the frame.

4. Check the belt and deck condition.

A. Look at the edges of the belt while you roll it by hand. If the belt has any rips or looks excessively worn the belt needs to be replaced.

B. Run your hand under the belt on the top of the deck surface. If you feel excessive ridges or cracks, or if the deck feels grooved, yet highly polished, the deck should be flipped so that an unused surface faces the top. If the deck is worn on both sides it should be replaced. In time, a worn belt and deck can cause high current draw and ultimately, motor failure. See *Running Belt and Deck* in the *Removal and Replacement* chapter of the Service Manual.

! WARNING: Keep wet items away from inside parts of the treadmill. Electrical shock could occur even if the treadmill is unplugged. The motor voltage test should be performed by a qualified service technician. Do not touch the resistor labeled R34 or black capacitors to avoid electrical shock.

5. Remove the front panel.

A. Using a 3/16" Allen wrench, remove the four button head screws and four starwashers that hold the front panel in position.

B. Place the front panel on the floor or temporarily screw two of the button head screws into the frame where they came out, and then hang the front panel on the screws.

6. Measure motor voltage.

A. Press **START/ENTER** twice to enter *Manual Mode.*

B. Without standing on the belt, press the **+** key to bring the speed of the treadmill up until the treadmill reaches its highest speed, 10 mph (20 kph).

C. Touch the voltage meter leads to the lower board + and - solder points. See Figure 1. Touch the red lead to positive, and the black lead to negative. On a 115V unit the motor voltage at 10 mph (16 kph) with no load should not go below 83 VDC. On a 220V unit the motor voltage at

115V
New Motor = 94 VDC
Minimum = 83 VDC (or 12% demag)

230V
New Motor = 191 VDC
Minimum = 168 VDC (or 12% demag)

10 mph (16 kph) with no load should not go below 168 VDC. If it is below 83/168 VDC respectively, the magnets are weak and the drive motor should be replaced. Press **STOP** to end the test.

7. **Secure the front panel.**

   A. Using a 3/16" Allen wrench, secure the front panel to the frame with the four button head screws and four starwashers.

8. **Secure the side rails and motor cover.**

   A. Snap the side rails back down into their original position.

   B. Using a 3/16" Allen wrench, attach the end caps onto the sides of each side rail with two button head screws.

   C. Lower the motor cover in place and attach it with the two Phillips screws.

Running Belt & Deck

After a deck has been rotated, flipped, and rotated again, the useful life of the deck has been met. Have a qualified Cybex service technician replace your old deck with a new one.

NOTE: *This procedure will cover the running deck, running belt, front roller, rear roller and drive belt.*

Tools Required

- Phillips head screwdriver
- 7/16" wrench
- 1/2" wrench
- 3/4" wrench
- 3/16" Allen wrench

1. **Turn the power off.**

   A. Turn the main power switch in the front panel to the off (O) position. (It is labeled I/O).

   B. Unplug the treadmill from the power outlet.

2. **Remove the motor cover.**

   A. Using a Phillips head screwdriver, remove the two screws that fasten the motor cover to the frame.

   B. Lift the motor cover and remove it from the treadmill.

3. **Remove the side rails.**

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A. Using a 3/16" Allen wrench, remove the two button head screws that fasten each side rail to the frame. This step will also loosen the end caps.

B. Grip the top edge of each side rail and firmly pull it up and outward from the treadmill.

4. Remove the rear roller.

A. Using a 3/4" wrench, remove the two rear roller bolts. Loosen each bolt evenly, making sure not to loosen either bolt too many turns before moving to the other bolt. Remove the bolts, washers, springs, and nuts and set them aside.

B. Lift one side of the rear roller and slide the roller out of the running belt.

5. Loosen the deck.

A. Using a 7/16" wrench, remove the nine screws, nine washers and nine belt retaining washers that hold the deck in place. See Figure 3.

B. Using an Allen wrench, remove the remaining screw, spacer, and belt retaining washer. Leave the deck in place at this time.

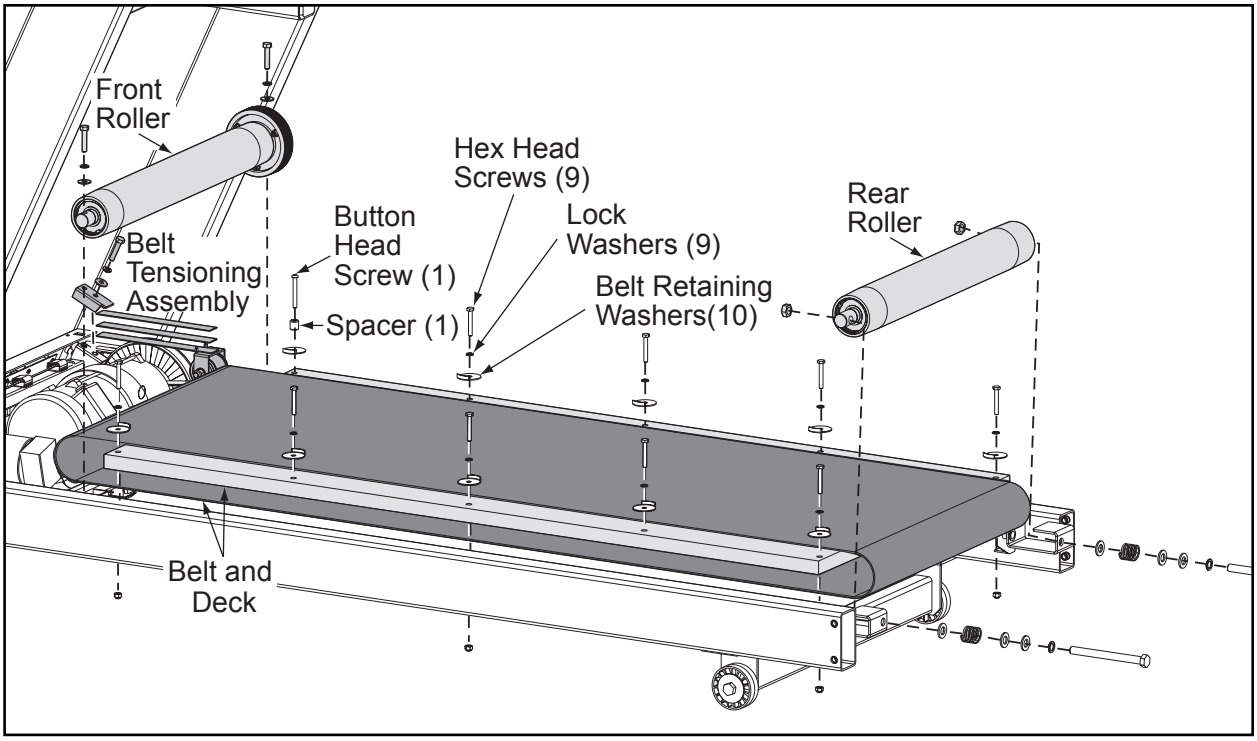

Figure 3

6. Loosen the drive belt.

A. Using a 1/2" wrench, remove the mounting bolt and two washers on top of the drive belt tensioning assembly. See Figure 3.

B. Remove the two steel bar springs, along with the drive belt tensioning roller.

7. Remove the front roller.

A. Using a 1/2" wrench, remove the two screws and four washers that fasten the front roller to the front end assembly.

B. Lift and slide the front roller out of the drive belt and running belt.

8. Remove the running deck and running belt.

A. If you are rotating or flipping the deck make a note on the deck so you know which way it was positioned. This way, you can be sure to use all four deck positions before replacing the deck. Make the note near the edge of the deck where the bolts are so that the note will not be worn off by belt contact.

B. Lift one side of the deck and slide it out of the running belt. The running belt is now free to remove from the treadmill.

! CAUTION: Cybex recommends using only Cybex running belts because we cannot guarantee the performance of other brands.

9. Position the running belt and running deck.

A. Place the running belt in position around the deck.

B. Place the deck in position without the hardware at this time.

Drive Belt

10. Position the drive belt.

A. If you are changing the drive belt you can slip the old belt around the fly wheel and off the treadmill. Slide the new drive belt around the flywheel and on to the drive pulley. Slide the front roller into the running belt. Be sure the drive belt is around the drive pulley and the front roller before attaching the front roller. There will be some slack in the drive belt until step 12D is complete.

Front Roller

11. Attach the front roller.

A. With the drive belt around the drive pulley and the front roller, loosely attach the two screws and four washers that fasten the front roller to the front end assembly. Tighten each of the two screws evenly. Make sure not to tighten one bolt too many turns before moving to the other bolt.

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12. Attach the drive belt tensioning assembly.

A. Place the drive belt tensioning roller in position under the front bracket on the drive belt tensioning assembly. See Figure 3.

B. Place the two steel bar springs over the drive belt tensioning roller plate and under the front bracket on the drive belt tensioning assembly. Be sure springs are firmly seated against the stop under the drive belt retainer.

C. Be sure that the pulley is aligned with the drive belt.

D. Using a 1/2" wrench, tighten the mounting bolt and two washers while keeping the pulley aligned with the drive belt. ***NOTE:*** *A drive belt that is too loose may squeal and you may be able to see it slip when you walk on the running belt.*

13. Attach the running deck.

A. Using an Allen wrench, attach the remaining screw, spacer, and belt retaining washer in the frontmost right hole.

B. Using a 7/16" wrench, attach the nine screws, nine washers and nine belt retaining washers that hold the deck in place. See Figure 3.

Rear Roller

14. Replace the rear roller.

A. Slide the rear roller into the running belt.

B. Place the bolts, washers, springs, and nuts in position. Partially tighten the two bolts leaving them loose until step 15C.

15. Reinstall the side rails and end caps.

A. Line up the side rails with the end of the frame. Place the bottom edge of each side rail under the treadmill frame and push the top edge of each side rail in place. It will snap on.

B. Place the end cap flush with the end of the side rail and the end of the frame. Use a 3/16" Allen wrench to attach the two button head screws that fasten each end cap and side rail to the frame.

C. Using a 3/4" wrench, tighten each rear roller bolt evenly, making sure not to loosen either bolt too many turns before moving to the other bolt. use the small plastic tab above the bolt hole as a visual reference to tension the rear roller bolts. When tightening the rear roller bolts, look down onto the plastic tab located just above the bolt head. Make sure the entire side of the silver washer is visible and is not hidden by any portion of the tab.

16. Adjust the running belt tension and center the belt by following the instructions

Running Belt Adjustments **in the** ***Preventive Maintenance*** **chapter. Then continue with step 17.**

17. Attach the motor cover.

A. Lower the motor cover and in position and install the two Phillips head screws that hold it in place.

Error Codes

Cybex provides error code descriptions for your information. Cybex recommends that these errors be addressed by a qualified service technician. These codes notify you of a problem condition and errors which jeopardize safety will shut the treadmill down. The codes also help to indicate the part of the treadmill most likely to be causing the problem.

ERR 1:	No Speed Signal at Startup
ERR 2:	Excessive Current Draw
ERR 3:	Loss of Speed Signal
ERR 4:	No Frequency Lock
ERR 5:	Elevation Error
ERR 6:	Overspeed
ERR 7:	Loss of NOVRAM

If you have a problem that interrupts an important operational area of the treadmill, you may see one of the above error codes displayed in the control panel. If an Error Code is generated during operation, the treadmill's speed will slow down to zero. In order to restart the treadmill, the Error Code must be cleared by cycling the power to the machine by switching the ON/OFF switch to "OFF" for five seconds and then switching it back "ON" again. Should a code reappear soon after cycling off, then on again, report the problem to your Cybex dealer, authorized Cybex service representative or directly to Cybex Technical Support.

ERR 1: No Speed Signal at Startup
This error code usually occurs only during start-up and indicates that the computer in the control panel is not receiving any indication of motor speed.

To isolate the source of this problem, you need to determine whether the drive motor tried to start up and did rotate or whether it never came on at all.

If the drive motor (and running belt) rotates, even if only for a second or so, the error code usually indicates that the speed sensor is malfunctioning. The quick way to check this is to remove the motor cover and the front panel to witness the SPEED LED on the motor control board. If it blinks when the flywheel is rotated by hand, the problem is most likely the console cable. After that,

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suspect the lower board and then the display board. This signal can also be seen on a diagnostic LED of the display board.

If the drive motor (and running belt) does not rotate at all, the problem is more difficult to diagnose. First, suspect the power relay and check it by going into diagnostics, d13, and press the **v** elevation button in conjunction with the **SPEED +** button. This will toggle the relay on/off. You should be able to hear the relay toggle and note as well that the value in the right window reads "1." If it reads zero, the problem is most likely the console cable.

If none of these prove to be the problem, have a qualified service technician check the wiring for wear or abrasion and also inspect the motor brushes. Any arcing, pitting or burning of the brushes, or a brush that is less than .438" (7/16"/11.13mm) indicates the need for brush replacement. The tightness of the brush cap and brush holder mount in the drive motor housing should also be checked. ***NOTE:*** *There are two lower board fuses which allow power to the display and to the motor drives. The upper display is not likely to light up at all if one or both of the fuses need to be replaced. Have a qualified service technician replace these only with equivalent value fuses.*

ERR 2: Excessive Current Draw
This error code is generated by exceeding the current limit of the motor drive system for two seconds. The error is generated to help prolong the life of the treadmill and alert the owner to a potentially damaging situation. Most common occurrences of this are high belt/deck friction due to wear or contamination, a worn motor, or a breakdown of the choke. Problems in the drive motor brush area, such as worn, pitted or arcing motor brushes, a loose drive motor brush cap, or a loose drive motor brush holder can also cause this error code to be generated.

Another source of this problem could be excessive friction between the deck and belt, usually caused by a lack of routine belt/deck cleaning, or by a worn deck (see the Preventive Maintenance chapter).

A third cause for this code could be a defective choke or a poor connection at the choke assembly.

Last, the failure of an electronic component in the motor control or loss of magnetism in the drive motor permanent magnet could also generate this error code.

ERR 3: Loss of Speed Signal
This error code occurs after the treadmill has successfully started, and indicates that the computer in the display control panel has lost the motor speed signal from the speed sensor. The causes for this error are similar to those listed for Error 1.

ERR 4: No Frequency Lock
This error code can occur when the treadmill is powered on by turning the main ON/OFF switch to the ON position and the treadmill is unable to identify the frequency of the supply

voltage. The cause of this error can usually be attributed to noise or "interference" from the power line. An electrical device with a high speed motor, such as a vacuum, blender, or power saw, on a local power line can sometimes cause this error. If this error occurs, check to make sure the treadmill is installed on a dedicated line and re-cycle the power to the machine by switching the main ON/OFF power switch to "OFF" for five seconds and then switching it back "ON." If the problem persists, contact Cybex, your local Cybex dealer or authorized Cybex service representative.

ERR 5: Elevation Error
This error code indicates a problem with the elevation circuitry. If the elevation does not reach a destination within about 30 seconds (the maximum run time from 0% to 15% grade), an error is generated and the elevation may be disabled by software. Another instance could be the lack of crossing the 0% grade point which is signaled by a "zero" switch in the left rack assembly. This switch has an indicating LED on the lower board and should be the first item checked. Another cause of this error could be no movement of the elevation at all for 2 seconds or a breakdown of the encoder built in to the rear of the elevation motor.

Any of these cases can cause the elevation to be shut down and left inoperable by the display software and must be repaired before operation of the elevation can resume. Once repaired, a full-calibration cycle must be generated by turning the power on or doing a calibration in diagnostics (d4, pressing the **v** arrow and **+** keys at the same time) and deleting the error in the error log (d11) to keep track of future errors. If the elevation is disabled by software, dashes may be displayed in the elevation window to indicate this to the user. If the elevation is stuck in the full up or full down position, you can manually move it in diagnostics 4 (d4), Incline Sensor Test, by using the **v^** arrow keys.

ERR 6: Overspeed
This error code indicates a problem with the speed control circuitry. It can occur if the treadmill recognizes a discrepancy in the actual belt speed vs. the speed set at the control panel. If the actual speed of the belt is 1 mph (1.6 kph) over the set speed for 0.2 seconds or 2 mph (3.2 kph) below the set speed for 2 seconds, this error code will be displayed.

If the speed attempts to increase, it may be because of a defect in the power supply circuitry to the drive motor, the speed sensor, or the filter capacitor.

If the speed attempts to decrease, it is most often because a person is pushing on the belt. Or it may be because of a defect in the drive motor, the speed sensor, or a worn running deck.

If either of these conditions exist, call your local Cybex dealer, authorized

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Cybex service representative or directly to Cybex Technical Support. An authorized Cybex technician can usually detect the source of the problem with a service visit.

ERR 7: Loss of Novram
This error code indicates a problem with the nonvolatile random access memory (NOVRAM) contents. The NOVRAM chip is located in the DDM (Digital Display Module). Its contents may have become lost or destroyed. Among other data, this chip holds the accumulated miles and time information. You can reset the NOVRAM error by turning the treadmill off and then on again, but you may lose all of the accumulated data. Should the problem recur, you will need to replace the microprocessor chip or the DDM.

Diagnostic Tests

These tests display status information about the treadmill to help you isolate the cause of a problem or to monitor accumulated usage data. Some of the tests also give quantitative information (such as motor current readings and elevation encoder counts) to help you further evaluate the machine's condition.

d1: Software Revision and Heart Rate Sensor
d2: Actual Speed
d3: Current Draw
d4: Incline Sensor Test
d5: LED Test
d6: Keypad Test
d7: Total Time
d8: Total Distance
d9: Number of Starts
d10: Speed Sensor
d11: Error Log
d12: Log Clear
d13: Power Relay Test
d14: CSAFE Port Check

NOTE: *Press* **STOP** *to exit Diagnostic Test Mode.*

NOTE: *The Diagnostic Tests can be accessed while the treadmill is in the Dormant Mode or while it is running.*

To access the diagnostic tests, press and hold the **SHIFT** key, then the **-** key. Once the diagnostic mode is entered, "d1," representing diagnostic test 1, will be displayed in the left control panel window and the test results will be displayed in the right display window.

To advance to a specific diagnostic test, press the **START** key to scroll forward or the **SHIFT** key to scroll backward through the menu of tests.

To exit the diagnostic test mode, press the **STOP** key at any time. This will return you to the mode you were in before entering *Diagnostic Tests*.

d1: Software Revision and Heart Rate Sensor
This test displays the configuration information for the main program chip in the control panel. "d1" is displayed in the left control panel window, and the right control panel window displays the revision level of the main program.

For example:
d1 2.06

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit the test mode and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostic test menu.

Also active in this diagnostic window is the test for the heart rate. The backlit heart symbol will pulse with every received pulse. Note that the usable range of the Polar Transmitter is only about 30" (76 cm) from the console cross rail where the pickup sensor is embedded.

d2: Actual Speed
This test displays the diagnostic test number d2 and flashes the set speed, in 0.1 mph (kph) increments, in the left control panel window. ***NOTE:*** *The decimal point is not displayed.* The right control panel window displays the actual measured speed of the drive motor in mph (kph) by using the signal from the speed sensor.

9.5 mph, for example:
d2 95 9.50

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostics Tests*.
SHIFT backs you up one step in the diagnostics test menu.
The **-** and **+** keys change the set speed in 0.1 mph (kph) increments.

d3: Current Draw
The diagnostic test number d3 is displayed in the left control panel window. The right control panel window displays the current draw of the drive motor when the treadmill is running. You must start the treadmill before entering diagnostics in order for this test to be valid. See nn 2 for details.

For example:
d3 4.8

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Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.
The **-** and **+** keys change the speed set point.
The **v^** arrow keys change the elevation set point.

d4: Incline Sensor Test
This test allows you to elevate the treadmill up and down using the **v^** arrow keys. The elevation % grade reading flashes in the left control panel window.

This test displays the diagnostic test number d4 and flashes the elevation % grade in the left control panel window as the correlating elevation encoder value is shown in the right window. Each % grade is equivalent to 88 counts of the encoder.

For example:
d4 12 972

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostics Tests*.
SHIFT backs you up one step in the diagnostics test menu.
The **v^** arrow keys change the elevation up or down.
Also active in this diagnostic is the capability to calibrate the treadmill by pressing the **v** key and the **+** key simultaneously.

d5: LED Test
This test lights up all the LEDs and back-lit messages on the display individually, in sequence. It allows you to locate any bad LED segments.

For example:
- - - - - - - -

Active keys during this test (hold keys for two seconds):
The **-** or **+** keys will light up all the display segments at once.
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.

d6: Key Pad Test
The diagnostic test number d6 is displayed in the left control panel window. This test displays a code number for any key depressed during the test in the right display window. Each key on the display is represented by a code number 1, 2, 4, 8, 16, 32, 64, counting from left to right.

For example, for the **+** key:
d6 64

Active keys during this test *(hold keys for two seconds)*:
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.

d7: Total Time
This test displays the total accumulated time to date, in hours, that the treadmill has been used.

The diagnostic test number d7 is displayed in the left control panel window. The right control panel window displays the hours. The time starts in the right window but as the number of hours increases it expands into the left window.

For example:
d711 TIME 8941

This display indicates 118,941 hours.

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.

d8: Total Distance
This test displays the total accumulated distance to date, in miles (or km), that the treadmill has been used. The diagnostic test number d8 is displayed in the left control panel window. The right control panel window displays the distance in miles (km) if 9,999 or less. As the number increases beyond 10,000, the right window resets (rolls over) to 0 and starts counting up all over again. The left window in this case will show a "2" in its right digit to reflect that the treadmill is counting its second set of 10,000.

For example:
d8 2 5444 DISTANCE

This display indicates 15,444 miles.

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.

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SHIFT backs you up one step in the diagnostics test menu.

d9: Number of Starts
This test displays the total accumulated distance to date, in miles (km), that the treadmill has been used.

The diagnostic test number d9 is displayed in the left control panel window. The right control panel window displays the number of times that the treadmill has been started if 9,999 or less. As the number increases beyond 10,000, the right window resets (rolls over) to 0 and starts counting up all over again. The left window in this case will show a "2" in its right digit to reflect that the treadmill is counting its second set of 10,000 miles.

For example:
d9 2 START 5444

This display indicates 15,444 starts.

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.

d10: Speed Sensor
This test confirms that the speed sensor is being detected and processed by the speed sensor. During this test, if the motor is running, you should see the numbers on the display constantly increasing, counting the number of pulses generated by the speed sensor. As the speed of the motor is increased the numbers will increment faster.

This test displays the diagnostic test number d10 in the left control panel window. The right control panel window displays the speed sensor count.

For example:
d10 2698

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.

d11: Error Log
This test will allow you to view the last nine error codes the treadmill has generated. In this test, the left window displays the diagnostic test number d11 followed by a flashing digit representing the error log sequence number (1 through 9). Number 1 represents the most recent error code, 2 the next most recent, up to 9, the oldest error code. The right window displays the error code number (1 through 7, see list below) associated with the error code

sequence displayed in the left window.

Example 1:
d11 4 6

Example 1 shows that error code number 6 was generated four error messages ago.

ERROR CODE NUMBERS
1: No speed signal at startup
2: Excessive current draw
3: Loss of speed signal
4: No frequency lock
5: Elevation error
6: Overspeed
7: Loss of NOVRAM

Only one error code from the log can be displayed at any time. To scroll through the Error Log, use either the speed or the elevation keys.

Treadmill errors that compromise safety will cause the treadmill to become inoperative. These require that power be cycled off, then on again to resume use. If the errors recur, the treadmill will again be inoperative and will require repair by an authorized Cybex service technician.

Active keys during this test (hold keys for two seconds):
START/ENTER will save settings and advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering *Diagnostic Tests*.
SHIFT backs you up one step in the diagnostics test menu.
The **- +** keys cycle you through the Error codes.
The **v^** keys cycle you through the Error codes.

d12: LOG Clear (Error Log & Service Reminder clear switch)
This test allows you to clear (erase) all the error codes in the Error Log and/or to clear (turn off) a Service Reminder. In this test, the left window displays the error set message (ErrS), and the right window shows the Service Reminder set message (nnS).

Example 1:
ErrS nnS

To clear the Error Log, press the ^ key, and the left window will display the error clear command (Err C).

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To turn off a Service Reminder, press the **+** key, and the right window will display the Service Reminder clear command (nnC).

Example 2:
ErrC nnC

Press **START** to accept the clear command(s) and advance to d1.

Active keys during this test (hold keys for two seconds):

START/ENTER will accept the displayed state of the Error Log and Service Reminder and advance you to the first diagnostic test.
STOP will accept the displayed state of the Error Log and Service Reminder and will exit and return you to the mode you were in prior to entering the diagnostic tests.
SHIFT accepts the displayed state of the Error Log and Service Reminder and backs you up one step in diagnostic test menu.
The v^ keys toggle the Error Log from Set (S) to Clear (C).
The - and + keys toggle the Service Reminder from Set (S) to Clear (C).

d13: Power Relay Test
This test allows you to test (activate) the power relay on the lower electronics PCB. Pressing the **v** elevation button in conjunction with the **SPEED +** button will toggle the relay on/off. You should be able to hear the relay toggle and note as well that the value in the right window should read "1." If the number displayed in the right control panel window is "1," then the power relay control wiring is OK. If the value displayed is "0," then the relay can not be controlled by the display.

Active keys during this test (hold keys for two seconds):
START/ENTER will advance you to the next diagnostic test.
STOP will exit and return you to the mode you were in before entering the diagnostic tests.
SHIFT backs you up one step in the diagnostics test menu.

d14: CSAFE Port Check
This test checks the status of the CSAFE port on the back of the console. CSAFE is the industry standard for connecting to fitness equipment. The port is tested at the factory, but the status can be checked at any time. The test will indicate one of three states:

CSAF Good	Indicated when a test plug is installed (factory test).
CSAF run	Indicated when a CSAFE compatible communication device is present and running.
CSAF OPEn	Indicated when the port is open, or not responding to a CSAFE device.

EXIT...PRESS **STOP**

To exit the diagnostic test mode, press **STOP** to return the treadmill to its previous state.

NOTE: *If you were in the middle of a program before entering the Diagnostic Test Mode, you will be returned to the exact spot in the program where you left off. The speed, elevation, and time will all return to where they were prior to entering the diagnostic test mode. You will not lose any information and the elapsed time will not have changed.*

Parts List

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	SK-15487	Frame Assembly Kit <P12
1	1	AF-14105	Frame Assembly, Stable Flex
2	1	SK-15414	Rail, Side Right
3	1	SK-15415	Rail, Side Left
4	1	PL-12978	Cover, Right End Cap (Or W/Bracket, AX-14599)
4	1	AX-14599	Cover, Right End Cap With Bracket
5	1	PL-12977	Cover, Left End Cap (Or With Bracket, AX-14598)
5	1	AX-14599	Cover, Right End Cap With Bracket
6	2	AF-13462	Bracket, End Cap
7	4	HS-11328	Screw, SEMS 10-32 x 0.38 PNHD Phillips INT
8	20	HS-00163	Bolt, 5-16-18 x 0.75 SCHD BTN, (Console and Support)
9	16	HW-15401	Washer
10	2	HS-13769	Bolt, 1/2-13 x 2.5" B-Zinc, Rear Foot Mount
11	2	HW-11427	Washer, .593 x 2.0 OD Zinc, Rear Foot Mount
12	2	FM-14258	Tube Wheel Bearing
13	2	PL-14167	Wheel 3.0" O.D. x 1.0" Wide, Rear Foot
14	2	AF-14903	U Channel
15	2	HX-15111	Tape, Double Sided, (For U Channel)
16	2	HX-14909	Rubber Mount, Stableflex 60 lbs. 1.0" Ht
17	9	HN-10001	Nut, Lock 1-4-20 Ring Nylon
18	2	HX-14908	Rubber Mounting, Stableflex 1.0" Ht (Front)
19	1	ET-14366	Terminal Ground Tab
20	1	HS-12318	Screw, Type F 6-32 x .50 PHPNHD
21	9	HN-11925	KEPS 10-32 Hex Head STL Zinc
22	1	AX-15037	Choke/Conn. Kit, 230V
22	1	AX-14929	Choke/Conn. Kit, 115V
23	2	AF-14414	Transport Wheel, Single
24	2	HS-00261	Bolt, 1/2-13 x 5.5", Hex, Rear Roller Adjusting
25	2	HB-00188	Thrust Bearing 1-2" NO. TB812
26	6	HW-10028	Washer, B 1-2 Narrow Zinc
27	2	HX-11049	Spring, 1"O.D. Rear Roller Tensioning
28	1	AL-10975	Roller, Rear
29	2	HN-10029	Nut, 1/2-13, Zinc, Rear Foot Mounting
30	3	HW-00590	Bushing, 1/2" Nylon, Rear Roller Bolt
31	2	HX-13771	Ring Retainer 5-8" .579 FR.ID
32	9	HS-12295	Bolt, 1/4-20 x 1.75" Hex Head, Deck Mounting
33	13	HW-00180	Washer, 1/4" Lock, Deck Mounting
34	10	HX-14956	Disk Guide, Deck Edge
35	1	FM-14960	Flex Deck Indicator

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36	1	HS-14969	Screw, (For Flex Deck)
37	1	BD-14072	Belt, Drive, Poly - V, 280J10
38	1	AL-10980	Front Roller
39	3	HS-13759	Screw, Tap 5-16-18 x 1.50 Hex Head
40	3	HW-00165	Washer, Lock EX 5-16 Zinc
41	4	HW-00189	Washer, Flat, 5/16
42	13	HN-11136	Nut, 5/16-18", Hex Head, KEPS
43	1	HS-00273	Bolt Hex Head. 5-16-18 x 1"
44	2	FM-14459	Spring Plate
45	1	HS-10435	Bolt, Tap 3-8-16 x 3" Hex Head
46	1	HW-11580	Washer, USS 3-8 Zinc
47	1	HB-14015	Belt Tensioner Pulley
48	1	HW-00361	Washer Lock EX 3-8 Zinc
49	1	HN-00199	Nut, 3-8-16 Hex Head STL Zinc
50	1	FM-14145	Tensioner
51	1	BD-10981	Belt, Running 20.75 x 127.50
52	1	HS-14202	Bolt, 1-4-28 x .75 Hex Head Zinc
53	3	HW-10867	Washer, Fender 1-4 x 1.0 x .051
54	1	HX-11593	Key, ANSI Square, 3/16 x 1 3/16"
55	1	AX-14430	Flywheel With Speed Sensor Disc
56	1	DE-14260	Speed Sensor Disc Decal For Flywheel
57	1	FS-14140	Speed Sensor Bracket
58	2	HS-11976	Screw, Speed Sensor
59	1	AX-14602	Speed Sensor With Cable
60	1	HN-10717	KEPS 4-40 Hex Head Zinc
61	1	HW-10772	Washer, Flat NO. 4
62	1	HS-00156	Screw, 4-40 x 0.62 PNHD Phillips
63	1	MR-14010	Motor, 2.5 HP, 180V
63	1	MR-14009	Motor, 2.5 HP, 90
64	2	PD-14471	Pad, Isolation 1.40 x 5.25 x 5mm
65	2	PL-14120	Pad, Vibration, Drive Motor
66	1	FS-14479	Spacer, Motor Bolt
67	1	PD-14470	Pad, Isolator 2.0 x 8.0 x 5-16
68	1	AF-14148	Drive Motor Strap
69	1	FM-14086	Pin, Motor Strap
70	1	AF-14212	Gear Rack, Left, With Slot For Limit Switch
71	1	AF-14213	Gear Rack, Right
72	2	PL-14121	Block, Elevation Guide
73	2	PL-14122	Plate, Elevation Guide
74	1	AF-14099	Elevation Motor Shaft Extension
75	2	GR-14189	Gear, 12 Tooth
76	2	HX-11576	Key Woodruff ANSI 404 1-8 x 1-2
77	6	HS-00370	Set Screw 1-4-20 x 1-4"
78	2	AF-14097	Elevation Frame
79	1	AW-14457	Limit Switch Assembly w/Bracket and Cable
80	1	HN-10003	Nut, For Motor Strap
81	1	AF-14161	Bracket, For Tensioner
82	1	SK-16230	Elevation Motor 230V
82	1	SK-15161	Elevation Motor 115V
83	3	HS-11485	Screw, 10-32 x 0.38 Hex Head Zinc
84	2	HS-12125 GR5 ZN	Bolt, 5-16-18 x 2.75 Hex Head
85	2	HS-00194	Bolt, Hex Head .312-18 x 1.75"
86	8	HS-14255	Screw, 5-16-18 x 2.0 SCHD Steel
87	2	HX-14416	Clip, Wire Latching, U Shaped
88	1	AF-14030	Plate, Front Panel, Aluminum
89	4	HX-14416	Clip, Wire Latching, Grey Plastic
90	1	PL-13000	Cover, Motor
91	2	HS-00700	Screw, Motor Cover
92	1	DE-15297 115V/230V	Decal, Console Cable Exit
93	1	AF-14108	Upright, Right
94	1	AF-14107	Upright, Left
95	1	FT-14057	Console Crossrail
96	1	AF-15623	Front Panel
97	1	SK-15701	Lower Board Kit 230V
97	1	SK-15700	Lower Board Kit 115V
98	10	HS-11326	Screw (Lower Board Mount)
99	5	HN-12959	Nut, Jam 5-16-18 Hex Head Zinc
100	1	DE-10288	Label, Belt Caution, Grey
101	1	DE-14230	Label, 220V
101	1	DE-13906	Label, 115V
102	1	SW-10523	On/Off Switch
103	1	EH-12208	Receptacle, Power Inlet, 20 Amp
104	6	HS-00985	Screw, Type B 8-18 x 0.38 SLFTP
105	1	EH-13905	Clip, Wire, 1/2" Heavy Duty
106	1	HS-11977	Screw
107	1	FS-14898	Cover, Rear Console
108	8	HS-14391	Screw 6-32 x .38 PNHD Phillips SEM
109	1	PL-13507	Console Front
110	1	DE-15385	Label, Console Set 700T
111	1	DE-15385	Decal, Console 700T
112	1	DE-14114	Console Window for 700T
113	1	SK-15726	Keypad 700T
114	2	HX-10941	Grip, Handrails
115	2	HX-10942	Plug, Handrail End
116	2	HP-00181	Roll Pin 1/8 x 1" (For Handrail End Plug)
117	1	AF-13175	Handrail Assy., Right
118	1	AF-13174	Handrail Assy., Left
119	4	HS-11139	Screw, SEMS 10-32 x 1.25 PNHD
120	2	HW-13762	Washer
121	2	FS-13808	Grounding Clip, Anti-Static
122	2	HS-11195	Screw, 4-40 x 0.50 PNHD Phillips
123	1	EC-15052	PCB Assy. Heart Rate Monitor (Salutron)
124	1	AF-13509	Overlay Plates 700T
125	15	HS-11894	Screw, SEMS 6-32 x 0.25 PNHD Phillips INT
126	8	HW-13656	Washer Flat .187 ID x .875 OD x .06
127	1	AD-14880	C-Safe Interface Board
128	2	HX-10613	Dust Ring
129	2	PL-14920	Handgrip, Lower Contact Heart Rate
130	2	PL-14919	Handgrip, Upper Contact Heart Rate
131	8	HS-10716	Screw, 4-40 x 0.38 PNHD Phillips
132	4	HN-15130	Nut, Lock 5-16-18 NTE Series
133	2	HN-11585	Nut, 6-32 Nylok Hex Head Steel Zinc
134	1	EH-13468	Clip, Console
135	2	HS-11140	Screw, SEMS 6-32 x 0.38 PNHD Phillips
136	1	SK-15122	Kit, Crossrail With Polar and Contact Heart Rate
137	1	AX-14429	Kit, Crossrail With Polar Heart Rate Only
138	1	DE-14486	Serial Number
139	1	DK-10953	Deck, Running
NS	1	EC-15125	E-Prom, V3.15, 700T 230V (C-Safe)
NS	1	EC-15124	E-Prom, V3.15, 700T 115V (C-Safe)
NS	1	AD-14000	Control PCB (For All 700T, Without E-prom)

Continued on next page

ITEM NO.	QTY.	PART NO.	DESCRIPTION
NS	1	HX-13607	Mount HR Block
NS	1	AX-14429	Grip, Crossrail, For Contact HR, Kit
NS	1	EH-00472	Wire Tie TY-23M
NS	1	SK-15892	Brush Kit, 230V 50Hz (Includes Two Brushes)
NS	1	SK-15891	Brush Kit, 115V 60Hz (Includes Two Brushes)
NS	1	EC-15125	E-Prom, V3.15, 700T 230V (C-Safe) >P09
NS	1	EC-15124	E-Prom, V3.15, 700T 115V (C-Safe) >P09
NS	1	EC-15052	PCB Assy. Heart Rate Monitor (Salutron)
NS	1	LT-14463	Owner's Manual, 700T
NS	1	EF-14340	Fuse, 15 Amp Slo-Blo, 220V (On Lower Board)
NS	1	EF-14339	Fuse, 5 Amp, Elevation, 115V & 220V (On Lower Board)
NS	1	WR-13966	Cord, Power, 12 ft., 230V, 60Hz, Right Angle
NS	1	WR-13965	Cord, Power, 12 ft., 220V, 50Hz, Right Angle, International, Round Prongs
NS	1	WR-13964	Cord, Power, 12 ft., 115V, Right Angle
NS	1	EF-12367	Fuse, 20 Amp Slo-Blo 115V
NS	1	FM-11428	Insert, Alum, Rear Foot Mounting
NS	1	EH-10637	Strain Relief
NS	1	HX-10300-2	Brush Cap, Drive Motor
NS	1	EH-00986	Tie Wire T B TYB-25M
NS	1	EH-00670	Nut, Yellow Wire, #74-B
NS	1	EH-00472	Wire Tie TY-23M

NS = Not Shown

7 Service
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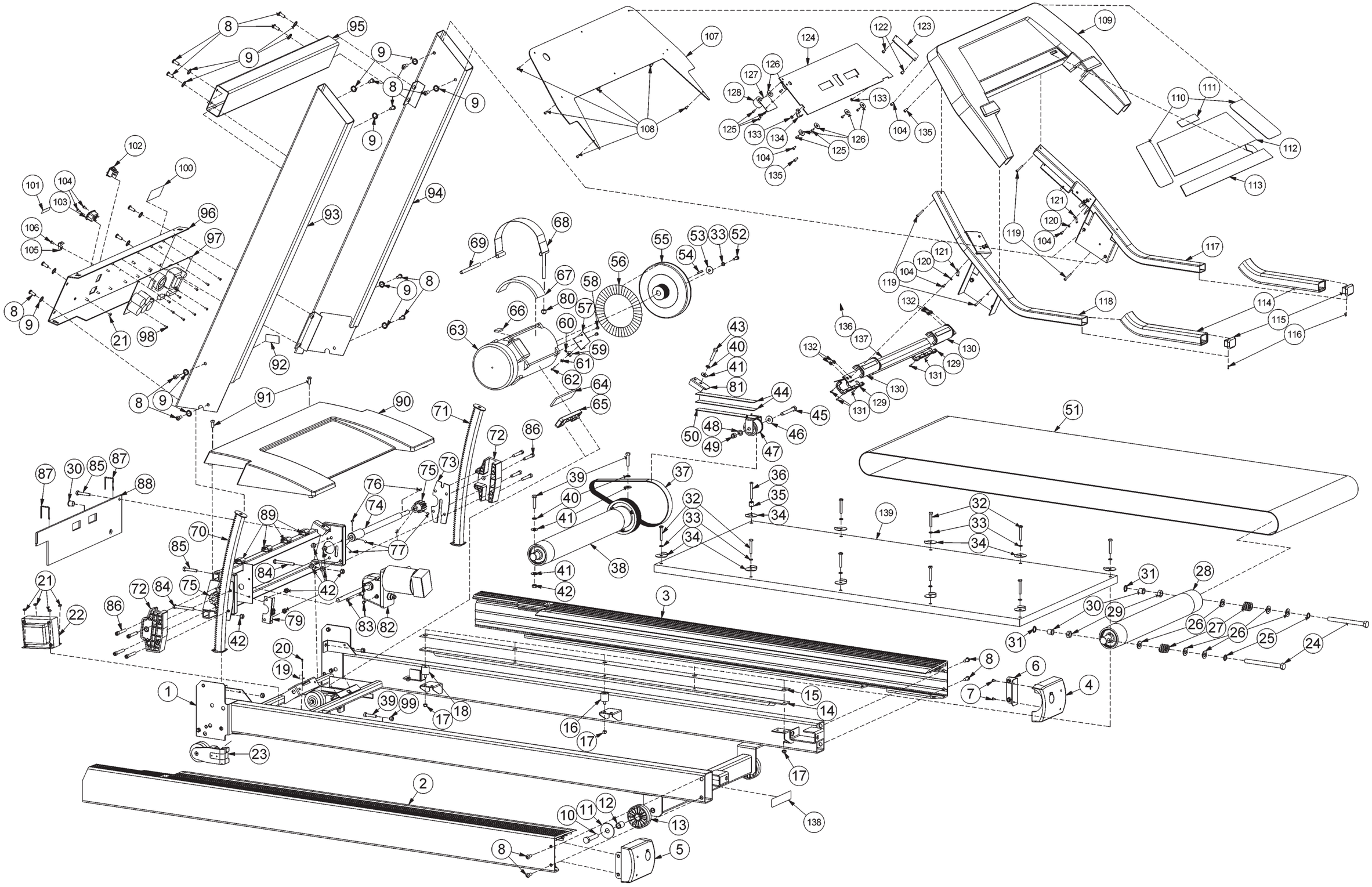

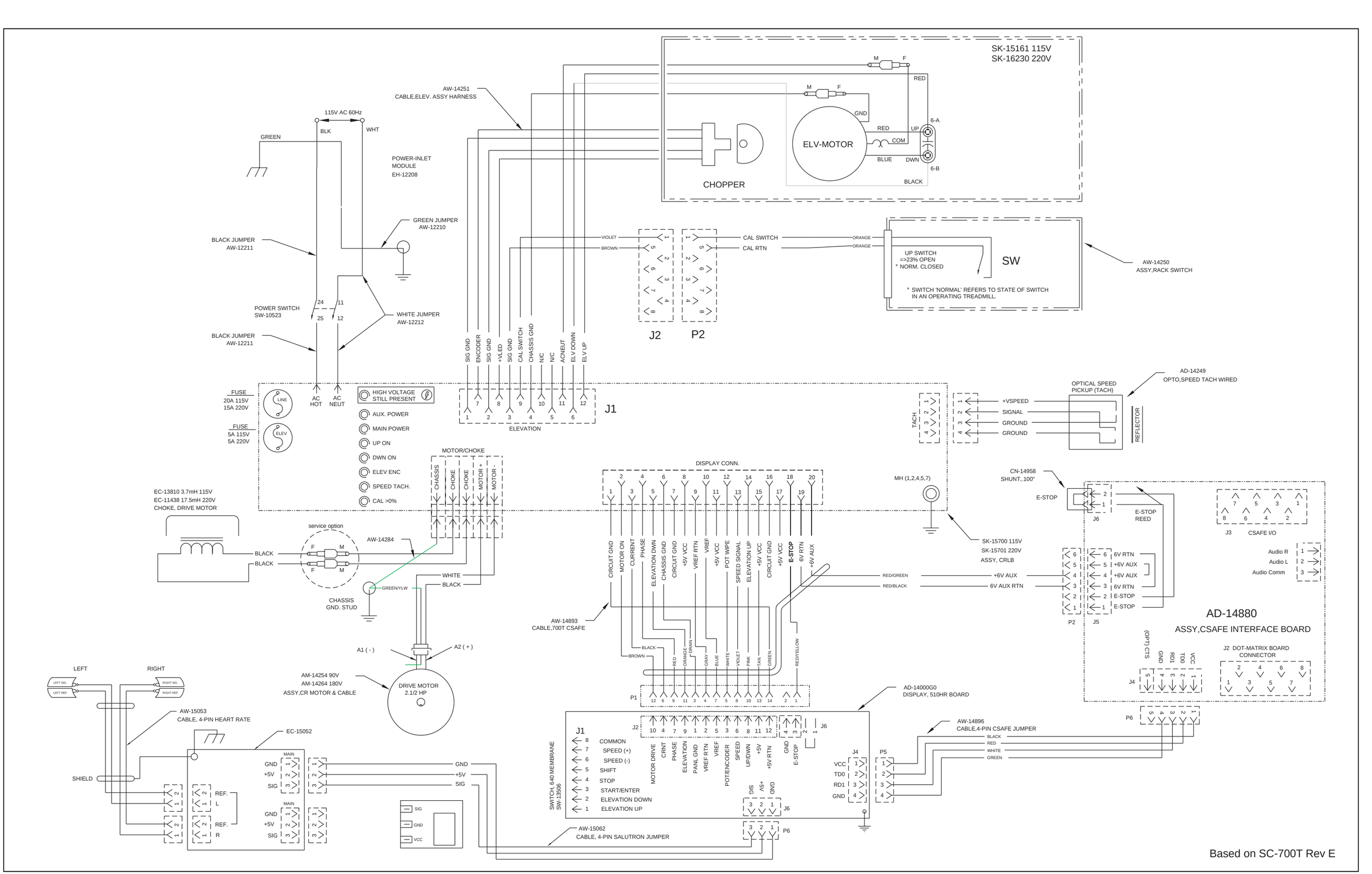

Based on SC-700T Rev E

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